

THE READER

A REVIEW OF LITERATURE, SCIENCE, AND ART.

No. 169, Vol. VII.

Saturday, March 24, 1866.

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His opening charge against Mr. Mill is, that in his "Logic" he decries metaphysics, and is yet continually smuggling them in, or refusing to go into questions at large where they impinge upon this ground. He would like the "Logic" without them, but when he comes to examine what Mill's metaphysics are, he cannot get on at all without these little asides. He makes nearly everything out of them in the first half of his book. He complains that he has made an "unwarrantable use and application of the laws of association," and "enormously exaggerated"

their power. He gives a chapter of admissions, some accidental, others trivial, and a few only real and important. The admissions that "our belief in memory is evidently ultimate," and that "the human mind is capable of expectation," are the two great factors with which Dr. M'Cosh works wonders to the satisfaction of himself, but certainly not to that of his reader, who, if he has Mill's works open before him, will smile incredulously at the critic's small discoveries. When Mill will not decide whether the three so-called fundamental laws of thought, those of Identity, Contradiction, and Excluded Middle, are structural in our minds; or simply experientially true of all observed phenomena, he hails the hesitation as implying "a doubt of the whole system of empiricism," but when he himself says of some of these admissions that they "seem to be very much of the nature" of intuitive first principles, or "look excessively like the first ultimate truths," a natural scepticism is felt as to both statements by any ingenuous mind. "It is time that those who allow" these intuitions "incidentally should be required to avow them openly and formally, and give a separate place to them;" it is time, also, that those who profess to have discovered them should really know what they mean, and be able to disentangle them. Dr. M'Cosh feels so doubtful himself about the matter that he concludes the chapter by absolutely forgetting himself and his works, and declaring that a flood of light will be thrown upon metaphysics "when we have an earnest attempt, by one competent for the work, to unfold the laws of our intuitions and their mode of operation." We need scarcely say we quite agree with him.

The chapter Dr. M'Cosh devotes to "Sensations" is extremely weak, both as philosophy and criticism. He quotes from Mill's "Logic" the statement that "the sensations are all of which I am directly conscious," as though Mill had affirmed that we were not also conscious of being "impressed;" but if we continue the passage (Vol. I., Fifth Edition, p. 61) we read, "but I consider them as produced by something not only existing independently of my will, but external to my bodily organs and to my mind. This external something I call a body." Now it was really body that Mill was defining, not sensation, yet we are treated to a long disquisition upon it, which would have been quite useless had he seen that Mill elsewhere, in a quotation he himself gives a dozen pages further on, regards the mind as itself modified by such states, and had declared on a previous page of his "Logic" (p. 57), in reply to a misconception of Dr. Whewell, that he did not mean that the external act called perception consisted of "merely states of mind." This kind of blundering is carried on all through the defence. He quarrels with Mill's definition of mind as "a series of feelings which is aware of itself as past and future," and wishes to substitute another for it—viz., "an abiding existence with a series of feelings!" But as Dr. M'Cosh quoted the remainder of the sentence that the "Mind or Ego was something different" from the series, his objections are puerile. Further, he quotes from the "Logic" a passage to prove that upon such a ground as this Mr. Mill must have a confused notion of other people's existence, if, indeed, he have any proof of it at all. The passage is really to show that absent things can be said to exist even when they are not and cannot be perceived, and to make clear the belief that under certain conditions we should perceive them. He defies Mr. Mill to show that consciousness can be reduced to simpler elements than knowledge of self as a person, in remembrance, also, a recollection of it, and in the comparison of the two a perception of their identity. Mill uses a definition of personality as merging in every act, whilst Dr. M'Cosh prefers to have the term as being, acting, and remaining. It is a mere matter of choice, however, and he can have two personalities if he pleases, or three—past, present, and future.

The same kind of objection is made to Mill's theory of the primary qualities of matter. Dr. M'Cosh complains that he and Mr. Bain "posit the body as a reality," without elaborate demonstration of its existence, and affirm that "muscular sensations and length of time" are different! He has got now, as he thinks, to a strong point. Our knowledge of extension, he maintains, is immediate, and chiefly obtained by vision. Platner's case, quoted by both Hamilton and Mill, he thinks cannot help the latter at all, and the whole subject is so inextricably confused that, for the benefit of both Mill and Bain, he writes anew the "Physiology of the Senses." When Mill put resistance, extension, and figure as the three elements that made up our conception of matter, he characterized the whole as "a series of assumptions, no one of which admits of proof, and some of which can be disproven;" but when he comes to re-write for them, we find him admitting nearly all he had been criticizing as "ingenuities" which could have been brushed away by Hamilton's sweeping logic. "We discover," he says, "extra-organic objects by the resistance offered to our movements . . . but already in touch" (before anything is touched, we presume) "we have an apprehension of our frames as extended" (p. 156). He admits the existence of a muscular sense, and actually quotes approvingly from Wundt a statement which is but the substance of what Bain had given in a simple illustration. Respecting vision, he fares no better. He quotes authors whose facts tell for him and against him, a passage from Wundt to show that "measurements of distance depend on nothing but the estimation of the muscular sensations accompanying the movements," and cases that substantiate every word that Mill and Bain have written upon the subject. The only point he brings out favouring his own view is, that the eye is immediately cognizant of direction and superficial figure; but if he had ever carefully watched the eyes of an infant, he would reasonably have doubted the former, whilst the latter is mere hypothesis grounded upon a case not unlike Platner's. When he approaches the relativity of human knowledge, he stumbles in just the same style. He calls it a mischievous doctrine, and then in a few paragraphs tells us that it may be held in a form "which will recommend itself to all sober thinkers." We are not going to track him through his wanderings around this subject, but inasmuch as he has expressly and oracularly declared what he means by intuition generally, we let him speak for himself without comment:—

The intuitions I stand up for are all intuitions of things. In opposition to M. Comte and his school in all its branches, I hold that man is so constituted as to know *somewhat* of things, and the *relations* of things. What we know of things, with their relations, *on the bare inspection or contemplation of them*, constitutes the body of intuitive truth, and the capacity to discover it is called intuition. Taken in this sense, the exercise of intuition is not opposed to experience, but is in fact an experience: only it is not a gathered experience; it is a singular experience at the basis of all collected experiences.

After this, Mr. Mill may have great hopes of his new Belfast disciple.

But Dr. M'Cosh has got to the citadel, and one hears a sort of faint death-tick at the door over which is written "Causation." It is Mill's stronghold, and few angels dare to tread here. He complains that Mill identifies the uniformity in the succession of events with the law of causation, and straightway imagines a world—no doubt it has been revolving in his own mind—where everything should have a cause, but "no one would be able from the past to anticipate the future." He calls the belief in causation and in its uniformity, intuitive—that is (see above), experiential for each solely, but not unitedly; as though each individual were astronomer, physical philosopher, chemist, and metaphysician all in one, and no one believed in chance but idiots and the insane. Mr. Mill's "Logic," he ventures to declare, speaking, we suppose, out of an intuitive, "singular experience," has "never

been subjected to a careful review on the part either of his supporters or opponents," and so he undertakes it in less than a hundred pages, and has the coolness to inform Mr. Mill that if he had "clearly perceived that there was reasoning in all induction, he would have been prevented from reversing the natural order by representing the reasoning process as an induction;" which clearly proves that if, as he is careful to tell us, the part of Mill's "Logic" which treats of "Induction" is used in his college classes, the chapters on "Reasoning," that form the previous book, cannot have been carefully read, for in the conclusion of the first it is put as plainly as words can make it, that "induction is a real process of Reasoning or Inference."

This wearisome, quibbling, specked-lens examination is carried on through the utilitarian morality, where intuitive, if used strictly as defined by our quotation, concedes everything Mr. Mill could wish. But Dr. M'Cosh thinks it would lead to self-righteousness and self-assertion, and has not yet made up his mind whether either are intuitive, in his sense of the term, or not. He appears to think, however, that a man needs nothing but a metaphysical training at Belfast to set him right with himself and the universe in the course of a couple of sessions. He deserves, in conclusion, to be praised for his real self-sacrifice. He does not expect to produce any effect upon Mr. Mill, and that is very candid of him. He is, indeed, more likely to make more converts for Mr. Mill by making honest readers of him resist his misunderstandings. It is only youths who are dissatisfied with Mill's philosophy, and cannot go over to Belfast, that he writes for; for he assures us, with a pure, but melancholy satisfaction, that all disciples of Comte are sectarian and exclusive; "they read one another, they quote one another, they are incapable of appreciating any other philosophy." Dr. M'Cosh is a firm believer in a critical Nemesis. Mill avenges his father, Grote avenges the sophists, but Dr. M'Cosh avenges himself.

WEALE'S SERIES.

Dictionaries: English, Greek, Latin, &c. *Grammars:* English, Greek, Latin, French, Italian, &c. *Latin Classics:* Cæsar, Livy, Horace, &c. *Greek Classics:* Æschylus, Homer, Xenophon, &c. *Histories:* England, Greece, Rome, &c. (Virtue Brothers & Co.)

THE highest praise is due to the publishers and editors of "Weale's Series." Confining their labours to no special subjects, they have produced works on almost every possible branch of school studies. The Classics, Modern and Ancient History, Mathematics, French, German, Hebrew, and English, have all received their most conscientious and diligent attention. Nor have their energies ended here. Messrs. Virtue and Co. have given us treatises on Mental, Moral, and Physical Philosophy, on Music, Navigation, Punctuation, and Chronology. That works which are of necessity brief, treating of abstruse subjects, should abound in deep thought and philosophical enquiry it would be folly to expect. At schools nothing of this kind is needed. Immature minds have to be introduced to studies of which they have little or no previous knowledge. What is requisite in such elementary manuals is a combination of accuracy and perspicuity, which a thorough mastery of the theme can alone ensure; and these qualities characterize "Weale's Series" in an eminent degree. The authors and editors have been as successful individually, as the sphere to which their collective efforts have been directed is wide. We can recommend with equal confidence the edition of the "Antigone," or the "Septem contra Thebas," and the French Grammar. In each there is the same safe method adopted. There is nothing showy or sensational in their style of instruction. The pupil is led on gradually; the notes and the explanations are just such as will prove the most beneficial to the tyro. Difficulties are not slovenly passed over, as is often the case in works of this description, nor are they allowed to assume a discourag-

ing or exaggerated form. In this lies the secret of educational success; young minds are apt to be too easily elated with confidence, just as they allow themselves too quickly to despond.

We have had occasion before now to mention in terms of high approval several of Messrs. Virtue and Co.'s educational publications. The execution of the dictionaries, whatever may be the language whose study they are intended to facilitate, is particularly good. Nothing can well be more difficult than the task of the miniature lexicographer. He must be on his guard against the Scylla of undue brevity, and the Charybdis of devoting too much attention to any one meaning of a word. Boys are very perverse; and they are apt to studiously select just that interpretation which, in the special passage in question, happens to be out of place—their excuse invariably being that it was "found in the dictionary." The clear and systematic arrangement observed in the volumes of "Weale's Series" will leave few such loopholes of escape for juvenile negligence. The soundness of the dictionaries is not wanting in the grammars. Rules are clearly stated and well illustrated. At the same time, the remarks on syntax are, to a certain extent, suggestive; the similarity which there is shown to exist between the Greek and Latin languages may urge on youthful ambition to the study of philology. The French and Italian grammars—the former the production of Dr. Strauss, the latter of Mr. A. Elwes—might be very serviceable for purpose of self-tuition. The editions of classical authors are just such as are needed for schools; their criticism is clear and reliable, and the fragments of translation given are immeasurably superior, for the example which they set the pupil, to what is sometimes seen in school editions. Passages in Æschylus, Homer, or Sophocles are well and judiciously compared with collateral constructions and sentiments culled from the Roman poets; where words are used with a peculiar force, their significance is carefully noted. The histories of this Series deserve the same commendation as do its other volumes. They are brief, yet not so brief as to be uninteresting. Excellent geographical notes are appended; and, what pleases us most, and what is too often not seen in such short manuals, more prominence is given to those events that have in reality made their influence most felt upon succeeding times than to such occurrences as, however they may attract the fancy, have a mythical rather than an historical value, and are suitable to the pages of poetry rather than to a stern narrative of fact. The impressions made by reading these elementary histories need never afterwards be removed.

Messrs. Virtue and Co.'s handbooks of Moral, Mental, and Physical Science will be found equally valuable and useful; and we do not hesitate to say that masters and pupils alike, whatever the subject of their studies may be, may turn to "Weale's Series" with the confident expectation of diminishing their respective labours, and without any danger of finding their confidence misplaced.

PLUMPTRE'S SUNDAY.

Sunday. E. H. Plumptre, M.A. (Strahan.)

IS the Lord's-day equivalent to the Jewish Sabbath or not? And what was that Jewish Sabbath? There are two classes of persons whose voices are most loudly heard on the subject, one *pro*, the other *con*. As usual, the truth lies between the two; a middle position is accepted by parties who are not to be out-blustered by neo-Judaism and robbed of their freedom, and who are quite as unwilling to be seduced by neologians into accepting licence in place of freedom. It is very remarkable, as a preliminary step to the examination of the question—Sabbath or no Sabbath—that wherever one fixed principle has been attempted to be positively laid down and sharply defined in religious matters, on inquiry the foundation is often

discovered to be laid rather on assertion than proof. However startling it may be to find all our ancient landmarks in danger of being removed, and however unpleasant the consequences resulting from such removal may appear, still, if it is a false landmark, and, moreover, rotten at the base, knock it down. The consequences are likely to be much more dangerous if our minds are tied to one or two dogmas, which may last on the "let it alone, it will do well enough for me" principle for some time, but ultimately may turn out false; than it is for us to be impressed with the general spirit of principles which, though they cannot be distinctly proved, cannot be easily controverted. Mr. Plumptre, in his pamphlet, goes thoroughly into the evidence of the Sabbath and its institution, and is led to take this step by occurrences in Scotland, where the pro-Sabbath party are strongest. He first notices the state of the question. A "day of rest" is admitted on all sides to be an incalculable gain for mankind. The question is how to secure this "day of rest" on the one hand from becoming a burden and hollow pretence of cessation of labour to the poor, and, on the other hand, from being gradually abrogated by its becoming virtually undistinguishable from the days of labour. According to rigid sabbatarians the obligation of the Sabbath rests, as other moral laws, on the revealed will of God. Is this the case? Absence of "work" is what the law requires; this fairly carried out would put an end to every sort of work whatever. This was, indeed, the old puritan view, which forbade a mother to kiss her child on the first day of the week. If we adhere to the letter of the law we are doubtless rigidly bound by the law. If we have recourse to the spirit of the law we at once give up the position originally taken. On an historical inquiry, Mr. Plumptre shows that although the hebdomadal division of time was known, the Sabbath was not binding on the Israelites as a positive law till the time of the Exodus. The Sabbath of the law had several reasons assigned for its observance. It commemorated the *Divine rest* as a pattern for man to imitate. It appeals to sympathy for others who were slaves in ceaseless toil. It was a covenant with a peculiar and separate people. The first reason alone is universal in its application, and its principle has been separated from the letter by a later oracle of God, "God rests, therefore man should rest;" but as there is a Divine activity which does not break the sabbatical rest, so there may be a human activity; and the question is no more one of casuistry as to the definition of the meaning of the statutory word "work."

Under the prophets provision was first made for connecting religious teaching with the Sabbath. At this time we may find, says Mr. Plumptre, the first germ of the system of synagogues, and the remote source of worship held in Christian churches. The Sabbath of this period is particularly noticeable as having been upheld by the prophets as a feast, a day of joy, and denounced by them as an abomination when it destroyed the rights of the poor. It was to be a sacrifice of time to the rich, a cessation of labour to the poor. The Sabbath became an abomination because the rich "exacted all their labours" of the poor, and themselves spent the day in idle luxury. Those whom the prophet Jeremiah charges with sabbath-breaking are the noble and the rich. The words of Zechariah and Malachi bear testimony against turning a festival into a fast, substituting days of penance for days of refreshing. Zechariah, with the ever-youthful spirit which springs from true godliness, looks forward to the time when "boys and girls should be playing in the streets of Jerusalem." (Zech. viii. 5, not ix. 4, as given by the author of the pamphlet.) Malachi complains that the element of joy had been lost, and with it the *good will* of the people (ii. 13). Until the New Testament era, the Sabbath, and the work permitted to be done on it, became a question of mere casuistry,

bearing heavily on the poor, but lightly on the rich. In the teaching of Christ, "without formally repeating, while in act recognizing the moral element, and as it were idea of the law, he tacitly allows the letter to slip into the back-ground of duties. Under the teaching of the apostles the Sabbath is not enjoined. The Sabbath-keeping of St. Paul is not the recurrence of a weekly festival, but passing into the tranquillity of the Divine life." There is much interesting matter in this little pamphlet, carrying the history of the Lord's-day and its obligations from its institution down to our own times. One quotation about the Reformers, and the one generally considered to take the most severe and rigid view of our duty in every way, and we have completed our task of drawing attention to a work written with great moderation and displaying much ability. Speaking of Calvin, Mr. Plumptre says: "In practice he is reported to have joined the citizens at Geneva at the public recreations, bowling and shooting, on the Lord's-day." The teaching of the Church of England ought to be looked at in conjunction with her practising daily morning and evening worship. Whatever amusement is felt to be incompatible with such manifestation of daily Christian life, *à fortiori* ought not to be indulged in on the Sunday which is held by her as a feast-day. As the Sunday League on one side is preparing for a secularization of the day altogether, and the Sabbatarian party are preparing for a more rigid observance of their view of the Jewish Sabbath, it would seem that the duty of a Government professing toleration for all its subjects would be to secure a day of rest for all on the first day of the week, at the same time using the legal means at hand for preventing unseemly riot and disorder. We heartily recommend Mr. Plumptre's pamphlet to those who desire a short summary of the history of the so-called "Sabbath"-day.

HUMBOLDT.

Alexander Von Humboldt; or, What may be Accomplished in a Lifetime. By F. A. Schwarzenburg. (Hardwicke.)

FEW men are more puzzling to ordinary minds than Humboldt. His name stands associated with no startling discovery, or gigantic scientific revolution. No simple fact in our daily life invariably recalls his name, nor can we crush down his genius into an epigram. We cannot measure either his usefulness or his fame. His discursiveness is as dazzling as his sublimity is profound. Amongst a group of contemporaries who were also giants of science and intellect, such as Arago, Cuvier, Gay-Lussac, Goethe, Niebuhr, Hegel, and others, he is seen in intimate relations with all, yet out-dazzled by none. We stand too near him to take in all his proportions, and yet this very nearness impels us to a closer scrutiny. We feel that his fame is safe, and yet we are vexed by a strong desire to measure that which as yet we cannot compass.

Any attempt, therefore, to assist us in these difficulties will be welcome to an English public, and especially so when it comes from one who is, we believe, a fellow countryman. We do not say that Mr. Schwarzenburg has succeeded in setting at rest all our puzzles. He has not even attempted to grapple with them in any bold and original manner, but he has been animated by a warm desire to popularize the memory of Humboldt, and has received encouragement from many of the personal friends of that illustrious man in so doing. "It is good," he says, "to contemplate the union of a well-balanced, with a complete and harmonious destiny." The result is a little book, somewhat deficient in method, and occasionally marred by imperfect English, but presenting, upon the whole, a very fair portrait of Humboldt in all his various occupations, as a student of science, a traveller, a diplomatist, and man of letters, and one that is honestly calculated to increase

our admiration of the man, and our sympathy with all scientific endeavour.

It is interesting to catch some gleams of so great a mind as Humboldt's when brought into contact with his contemporaries. The sublime certainties of physical science are frequently laughed at by mere litterateurs, and scornfully classed as mere hypothesis. Its methods are called in question, and the firm convictions of its students are treated as simply curious mental phenomena. Goethe was the last man in the world, one would have thought, to have felt anything of this kind, and yet one of his interviews with Humboldt revealed it, as also his coming conversion to another point of view. He writes to Humboldt's brother Wilhelm, in 1831: "I am much indebted to your brother, for whom I cannot find a surname, for a few hours of unrestrained conversation; and although his geological views and manner of investigation make my cerebral systems altogether impossible, I have observed with sincere regard and admiration how facts of which I cannot convince myself appear to him perfectly clear, and in absolute continuity with his comprehensive acquaintance with nature, preserved intact by the rare symmetry of his amiable character." Humboldt was, indeed, a striking representative of sincerity, industry, large-heartedness, and universal acquirement. He was everybody's equal, and mixed familiarly with kings, with whom he differed upon almost everything but a love of science. In fact, he elevated science above courtly distinctions and petty prejudices. He maintained that it did not interfere with our enjoyment of natural beauty; and his writings, which the poetic value for beautiful descriptions, and the scientific sometimes decay for that very reason, are a striking testimony to the truth of his conviction. His whole life was an eloquent protest against the opinion that science has not a pure moral culture of its own. Where shall we find a man in these days so wise, so gentle, so diffident, and yet so manly? His life did as much for science morally, as his labours did intellectually. He gave himself no airs, and yet no man could have been more excused, had he done so. He was always willing to learn, and from anyone. When he was fifty-five years of age he attended university lectures like a youth. Punctually at nine o'clock he took his seat on the fourth or fifth form, produced from a small map a piece of paper, and carefully noted the heads of Professor Boekh's lectures on Greek literature and antiquity. He also attended those of Carl Ritter on general science, to hear himself occasionally quoted as an authority on geognostic questions. He went, he said, to try and repair an earlier neglect, and one can readily believe that his presence was a powerful incentive to the studies of the young. Nor was he less willing to teach than to be taught. He was besieged with letters from all parts of Germany, France, and England, and punctually answered them all himself, so that when, in 1859, his strength began to fail, he had to request, through the medium of the public journals, that the public would excuse him from such duties, and no longer consider his house "a public office for general inquiry." He never married. His habits were simple and unassuming. He rose early, at four o'clock in summer, but later in his declining years; received visitors or paid visits at eight; at three drove to the Royal palace for dinner, returning at seven for a couple of hours, and again proceeding to Court, or into other society, until midnight, when he returned home and settled down to his scientific studies, rarely allowing himself more than four hours' sleep. In public, he was always welcomed, and suffused an atmosphere of gentleness and energy around him; and in private, as Goethe said, "choose any topic you like, and you will find he is at home." Of middle stature and fine organization, he had a massive forehead, lively blue eyes, and lips expressive of mingled benevolence and superiority. He had a wonderful

memory, and the whole of the series of lectures which were afterwards shaped into the "Cosmos" were delivered extemporaneously and without a single note. The results of his labours are thus summarized by Mr. Schwarzenburg:—

Alexander von Humboldt was in so many branches of science the first who introduced perspicuity and intelligibility, that it is, indeed, difficult to know where to commence. It is due in general to state of Humboldt, that he was the first who regulated and classified isolated scientific facts of the past and the present, and who assigned to everything its proper place, in order to establish the necessary harmony of the whole. His critical insight assigned to the apparent (ly) lawless a fixed law, the isolated found its kindred groups. He thus revealed and laid open the united life and activity of our planet in its actual being. He became, as testified by his life, the founder of a comparative cosmography, the originator of the science of geognosy, and indicated, with his friend Leopold von Buch, the volcanic activity which influences the formation of our earth. He was the founder of the geography of plants, an entirely new science, regarding the laws of their distribution. He discovered a new world, with new forms, new life, manners, languages, and the remains of an unknown antiquity. He likewise was the reformer of geographical maps; and lastly, the originator and representative of a new method in the investigation of general science, which is daily becoming more developed. He endeavoured to realize a more universal stand-point, tracing continually the mutual connexion of the divers branches of science, watching nature in her secret laboratory, searching for new facts, and discarding all kinds of speculations. He originated the modern school which unites physical science with human history, and which has produced, in its mode of investigation, remarkable results. This mathematical, exact method of research is due to Humboldt. His is at present the acknowledged method of the most eminent naturalists, though it cannot be denied that it led to the most trifling empiricism in those who only adopted Humboldt's method, without preserving his powers of combination, and his lofty insight into the laws of the physical Cosmos.

As we have said, the book is not pretentious, but aims to give a popular account of Humboldt, of his travels, his self-denying labours, and their results, so far as they can at present be measured. The writer concludes by a few pertinent observations on the moral, national, and economical importance of physical science, and thinks that the inevitable decay of material wealth can only be arrested by "an earnest revival of the study of chemistry, mathematics, and natural history."

DE PRESSENSÉ'S CHRIST.

Jesus Christ: His Times, Life, and Work. By E. de Pressensé. Translated by Annie Harwood. (Jackson, Walford, & Hodder.)

THE present decade of the nineteenth century has already produced four remarkable works upon that most deeply interesting of subjects, the Life of Christ. From Germany has come the rewritten "Leben Jesu" of Strauss; from France the "Vie de Jésus" of Rénan and the work whose title we have just quoted; from ourselves the anonymous "Ecce Homo." The first three (all of which have been translated into English) chiefly consider the historic aspect of Christianity, its claim to authority, the evidence in its favour, how far its records may be accepted as trustworthy—in a word, what resemblance the Church of the nineteenth century bears to that of the first, and the Christ of the New Testament to the teacher who went about doing good in Palestine. The last regards Christianity rather in its philosophic aspect, and, striving to place its reader in the position of a contemporary, discusses the claims of the teacher and his doctrine, together with points wherein he and they differed from his predecessors. Strauss and Rénan, as it is well known, are in the front ranks of the assailants of Christianity, as it is ordinarily understood in the Church catholic; M. de Pressensé comes forward as its defender. In what spirit he does this, the following extract from his preface will best show:—

I only ask of my opponents not to pronounce, in my case, that judgment without a hearing, which is so readily awarded to the defenders of the preternatural, and which dispenses with any fair trial. . . . I demand liberty of thought and conscience for every man. I repudiate all privilege and all coercion, especially in matters of faith. . . . I desire for my own opinions neither dole nor protection from the civil power; for, in my view, none have more reason to rest content with the common rights in the domain of thought than enlightened Christians. There is implied weakness in the very semblance of protection.

We proceed then to give a brief outline of the manner in which he accomplishes his task, to write a history of the Saviour-Christ, not as of "a God hidden in human form, but as God made man, who veritably submitted himself to all the conditions of human life." Rightly perceiving that the root of the objections of Strauss and Rénan is but the old Humean dogma, that "no amount of testimony can render a miracle credible"—the "fundamental conviction that everything that happens, or ever happened, happened naturally," of the former; and the "supposition that no supernatural agent comes forth to trouble the progress of humanity" of the latter—he devotes a chapter to considering the objections brought forward against the preternatural by Theists and Naturalists. Having, as we think, briefly but effectually disposed of these, he then proceeds to consider the wider preliminary question: How far was Christianity the natural evolution of the human mind, the result of causes operating in the world? To establish any conclusions on this, two points have to be considered—namely, "What is common to Christianity and to all preceding systems, philosophic and religious; how far does its spirit agree with or differ from theirs?" and "Did its characteristic doctrines spring, Athene like, full grown from its founder, or were they slowly elaborated in the course of long time by his successors." Strauss and Rénan, though differing on details, would reply that its founder drank somewhat from Grecian myth and Jewish Kabbala, from Plato and from Philo; and that his followers, borrowing yet more largely from these sources, corrupted by a mixture of vain fable and spurious philosophy the free outpourings of the noble soul whose memory they professed to honour. M. de Pressensé, therefore, devotes the remainder of his preliminary investigation, not much less than half his work, to the discussion of these points. We cannot do more than indicate very briefly the general course of his argument. Commencing with a short sketch of the Paganism of Asia, of Greece, and of Rome, he depicts the state of the world at the commencement of the present era; and points out, as has been so fully done by the author of "Ecce Homo," the wide differences between the results of it and of Christianity. From this he concludes—

It was not, in fact, a more complete doctrine, but a new Divine manifestation that the world was waiting for. We do not deny that some few of the social reforms of the Gospel were faintly anticipated at this time; but of what avail is a floating, cloudy idea which is incapable of trans-fusing itself into the heart and acts?

After glancing at the religion of the Old Testament, he proceeds to consider the "Judaism of the Decline." This part of the subject is worked out with much care; and the growth of the various schools of thought, which prevailed among the Jews nineteen centuries ago, is carefully traced out as regards both their political and their religious aspects. One of the fullest and most interesting branches of this inquiry is that devoted to the Jewish writings of the period between the close of the Old Testament canon and the destruction of Jerusalem. This portion of the book will be useful to many students, as supplying them with much information which it is not very easy to obtain in a concise form.

The second half of the work is devoted to the life of Christ. This is divided into four epochs, each of which forms the subject of a

book. These are (1) the preparation for and general character of Christ's ministry; (2) the first period of that ministry; (3) the period of conflict; (4) the closing struggle and the final victory. In treating of these the author, without claiming for the Evangelists inspiration in the ordinary sense of the word, accepts their works as genuine, and demands from his reader that they should be placed at any rate not on a lower level than the writings of Thucydides and Tacitus. Having considered the question of the possibility of miracles, and established the antiquity of these documents, in the earlier part of his investigation, he is now only concerned to show that their contents are neither self-contradictory nor opposed to the facts of general history, and that the character which they present to us is a consistent and a probable one. Hence we have the questions of the genealogies, the star in the East, the census of Judea, the massacre at Bethlehem, touched upon in order; but over these we must not linger further than to say that in the second of these points he adopts Kepler's theory of a conjunction of Jupiter, Saturn, and Mars. One chapter is devoted to the mysterious subject of the temptation; here we are naturally led to a comparison with "Ecce Homo," in which this difficult question is also treated. Both are good; but we think that the English author exhibits more power and originality. He considers the leading idea of those scenes to be a temptation to the Messiah to abuse his miraculous power, especially in employing physical force for the establishment of his kingdom; a conclusion nearly identical with that of M. de Pressensé, who holds that the temptations were designed to induce Christ to go along with the tide of popular opinion, "by declaring himself as the theocratic Messiah, the idol of degenerate Judaism."

The remaining chapters of the work are devoted to the history of Christ's public ministrations. In writing these the author appears to have had two especial objects in view; the one being to show that the accounts of the Evangelists harmonize together so as to form a connected and probable history; the other, that they do not prove any real change to have taken place in the spirit of the Saviour's teaching, but show a gradual and consistent development, which became more definite as time went on. These are effected by throwing the various accounts given by the Evangelists into a connected narration, accompanied by a running commentary on the actions or discourses in order to point out their special significance. By doing this, the author endeavours to refute several of the modern theories on the life and history of Christ, such as the asserted contradictions in fact and in spirit between the Synoptics and the Fourth Gospel, the Essene or Oriental origin of Christ's teaching, the interpolation of myths; and above all the theory which shows us the simple-minded, single-hearted, enthusiast of pastoral Galilee gradually transformed into the demagogue, shaken alike in mental and moral balance, of uncongenial Judea. Some may, perhaps, object to the author's views on various points treated in this division of his subjects; such as his free handling of the Scripture narrative, his utter rejection of anything like verbal inspiration, and the strong prominence given to the humanity of Christ and its connexion with his divinity; but we think that even they will welcome him as an ally against such critics as Strauss and Rénan. Claiming for the Evangelists little more than that they were sincere and earnest men, who intended to tell the truth, he shows (successfully, as we think) that the speculations of the above-named authors are not only baseless, but also contrary to all the ordinary rules of historical criticism. To trace the steps by which he does this would be too lengthy a task, we must leave our readers to do it for themselves. Although, occasionally, the author is a little verbose, and although we do not find in his reflections the vigour and originality that characterises the anonymous

work to which we have more than once referred, still we think it will well repay them.

We must, in conclusion, say one word on the translation. Not having the French copy before us, we cannot speak of its merits on the score of fidelity, but it runs well and easily, and we very rarely noted anything which reminded us that we were not reading an original work. The references to the Bible should have been altered so as to accord with the numbering of the verses in the English version; and it would have been an improvement if the proof sheets had been read by a classical scholar, for misprints in the Greek quotations are rather too frequent, besides such errors as Higesippus for Hegesippus, Bardesane for Bardesanes, Tubingua for Tübingen, Anitgone for Antigonus, and the like. On this last point we think that the author confuses the nameless brother of Alexander Jannæus with Antigonus, who was slain by Aristobulus (Joseph. Ant., xiii. c. 11. § 3, c. 12 § 1). We also think that many theologians will dispute the date which he assigns to the Apocalypse; many mathematicians will pronounce a statement on page 23 concerning the law of gravitation at least very incautiously worded; and many naturalists think that he has weakened his arguments by a too summary and unnecessary rejection of what is commonly called Darwinism. These, however, are minor points, and do not sensibly detract from the general value of the work.

THE OLD LEDGER.

The Old Ledger. By G. L. M. Strauss. In 3 Vols. (Tinsley Brothers.)

WHEN a critic has been pleased to speak of a work as "the very worst attempt at a novel that has ever been perpetrated," we may reasonably expect to find something inordinately bad. On the other hand, if we discover that we have placed too implicit a confidence in this very *ex-cathedra* statement, we shall not err in visiting an unmerited sentence of condemnation with considerable severity. Again, a production which has been alleged to be little more than a display of "bad Latin, bad French, bad German, and bad English," cannot well be supposed, if we pay credit to the words of the self-constituted judge, to come from any other than a grossly illiterate author. If, however, this assertion should be proved to be as groundless as the first, it will stand in need of still stronger censure, and for this reason: excellence in mere fiction is to a great extent matter of opinion. *Quot homines, tot sententiae*: a novel which one critic may pronounce admirable, will possibly appear to be little pleasing to another; the imaginative taste is modified and changed by education and association. But when the knowledge of the writer has been impugned, when he has been charged with grammatical incorrectness, pervading several languages; when, in fact, he is told that not only is his intellect vicious, but that he is in ignorance of the proper way of constructing a sentence, the matter is altogether changed. If what has been affirmed is not true and just, then the so-called critic has deserted his peculiar sphere, and has condescended to have recourse to rancorous abuse. The barrier between criticism and libel may be slender, but it must therefore be the more diligently observed. Those who most strongly uphold the liberty of the press are precisely those who must be most vigilant in seeing that journalism never oversteps its limit. The amount of trust accorded to reviews is at the present day immense. It is not too much to say that current literary opinion is almost wholly formed by them. Consequently, the injury that is done, when organs so powerful for evil or for good are wilfully perverted, is simply incalculable; and the more unqualified and positive their unjustly unfavourable judgment may be the more pernicious their effects will certainly prove.

The novel which has been the subject of the foregoing remarks, "The Old Ledger," has met with peculiarly harsh treatment from

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a contemporary whose name we need hardly mention; and that the work is not without faults, many of them grave ones, we are far from wishing to deny. In the first place, the development of the plot and of the characters is essentially unnatural. The heroes and heroines converse in a manner which is too often artificial, melodramatic, and forced. Dr. Strauss has thus been content to sacrifice one of the great sources of interest—accurate delineation of character. In its stead he has trusted to striking and rather fantastic incidents. The world which he describes is not the world of to-day, nor is it that of fifty years ago; and his actors are such as could surely never have been found among our contemporaries or our ancestors. Touches of nature, of course, there are, to be met with at intervals throughout the book, and sometimes sufficiently brilliant; but "The Old Ledger" wants the attraction that can only spring from a carefully elaborated account of human action and human motives. Its brightness is that of the wintry sun, utterly void of genial warmth; it is one of those fictions which may be read with great interest once, but whose second or third perusal will pall upon the mind. Dr. Strauss will not plunge sufficiently soon in *medias res*: he keeps his reader standing on the threshold for a long and weary while ere he will permit him to enter the veiled hall. He is not allowed to make the acquaintance of Sir Richard Ellesdee without being introduced to his grandfather, his great-grandfather, and other personages, who have but little interest except for inquirers into family annals, and framers of genealogical trees. In a similar manner, he is not permitted to form his own impression of a house, rich in antique curiosities and paintings; but is presented with a catalogue, in which its contents are enumerated with a conscientious fulness and accuracy worthy of the illustrious Robins. All this is very fatiguing; and it is rendered even more so by the frequent use which the author makes of italics; than the constant repetition of these nothing can be more wearying to the eye or mind. Underlined words or expressions are only pardonable in the letters of very young ladies; an author should make it sufficiently obvious where the main emphasis is to fall by the mere construction of his sentences. Thus we find "Then, did there not, perchance—who shall tell? for who knoweth?" &c., and "an exuberant philanthropy, with this awkward qualification, that she loved *man* rather than *mankind*, and *men* better than *man*," besides a host of other passages equally objectionable. The mere English composition of "The Old Ledger" is, in the main, extremely good; the style is nervous, pointed, and vigorous. Occasionally Dr. Strauss is a great deal too diffuse, and spends a superfluity of words upon one idea; but his work contains many very striking bits. This is good, masculine writing:—

No "platform philanthropist" he—not one of those crosses between sham religion and sham charity, the great admired of the Hall, who head subscription lists with decoy donations, and delight in sprinkling their dilute benevolence over some patent, vast, red-hot misery, that the hiss may be heard and the steam seen, to attract attention to their noble deeds, and to their noble selves; but one who would delight in solacing some secret sorrow, and effectually relieving some occult individual misery; and who would keep both hands employed in the congenial work, that the left might have no leisure to inquire into the doings of the right.

Of the advisability of introducing into a fictitious group of characters real personages, who have been disinterred for this express purpose, in the manner in which Dr. Strauss avails himself of the usage, we are not quite sure. However, the question is one of no serious importance. Occasionally quaintnesses are of too constant occurrence; "however so" is a favourite idiom of the author's. Again, colloquial expressions, or expressions which are even still more familiar, are too plentiful; but of the grammatical error, whatever the language in

question may be, which has been imputed to "The Old Ledger," there is absolutely none. Many of the scenes are admirably wrought up, and the descriptive ability displayed is considerable. The outbreak of a fire on board a ship at sea is an old theme, but Dr. Strauss has managed it well; the picture which he has given of a duel is graphic, and contains some of his best touches of character; while throughout the whole of the third volume the interest is various and well sustained. It is in his reflections that we like Dr. Strauss the least; they are often entirely irrelevant to the theme, and digressions, unless some colour of an excuse exists, are peculiarly objectionable. Even thought can be stimulated in the reader at too great an expense. We dislike also the gossiping tone which is sometimes assumed; and the circuitous method which is occasionally adopted of putting the reader in harmony with the writer's sentiments and convictions. "The Old Ledger" possesses the undoubted merit of containing a large quantity of interesting information, which sufficiently proves that the author is not only a man of literary tastes but considerable literary acquirements. With reference to this subject, we should advise Dr. Strauss to be more careful on all future occasions in the correction of his proof-sheets. The number of misprints which have been overlooked is quite surprising; while in Vol. II., page 65, occurs an extraordinary mis-quotation of a line and a-half from Virgil, such that while the sense remains intact the laws of prosody are completely violated. Defects of this nature are highly culpable, through reason of the carelessness which they display; though beyond this they argue nothing.

"The Old Ledger" gives evidence of a clever and a thoughtful mind. It is exceedingly unequal in point of merit—now brilliant, and now heavy. At one time we get glimpses of the touch of a master; at another we almost see the crudities of a tyro. We could also wish more than once that Dr. Strauss had indulged in condemnation a little less roundly, and with more reserve. It is, of course, just as well to call a spade by its most simple name; but as novel-readers generally adhere to conventional forms of expression, it may be as well to avail oneself of conventional language. We have pointed out frankly and plainly what we regard as the chief defects in "The Old Ledger," and we have done so because we feel sure that when its author has amended these, he may produce a very admirable work of fiction, and one whose popularity will be in proportion to its merit. His present production shows great power; his language is forcible; his imagination is vivid; and his descriptions are full of energy and spirit. He has a keen sense of humour; and the sketch of Dr. Jolibois, the prattler of Polyglot, is very happy. But Dr. Strauss' work has other recommendations besides these. The moral which it conveys is unexceptionable. "The Old Ledger" itself is "a ponderous old book, solidly bound in vellum, with elaborately-chased, heavy, solid gold corners and clasps," containing an inscription, and an avowal of the principles which are to guide successive generations of the house of Ellesdee in their banking transactions. To this each representative of the family is in turn required to affix his name, with a solemn oath that he will obey all the injunctions which are there laid down; that he will allow "no temptation, however so luring—no danger, however so threatening—no consideration of self or others, however so powerful and urgent—to make him swerve from that straight path of honour and integrity." It is only when this solemn oath is broken, that the fortunes of the Ellesdees begin to decline. The existence and influence of this time-honoured ancestral volume is well managed; and the main events of the narrative are skilfully represented as depending upon the faithful observance of its vows. As a whole, we are pleased with Dr. Strauss' work; and we do not doubt that at some future, and we hope not distant,

time, we shall be able to bestow upon him less qualified eulogy.

*Passages from the Works of Shakespeare, Selected and Translated into German by Gustav Solling. (Trübner & Co.)—Worthily to translate Shakespeare needs another Shakespeare, and Mr. Solling is hardly that, though on the whole his work is very well done. His version of "The quality of mercy is not strained," strikes us as one of his best; and it is remarkably close to its original, and good. In a "Hamlet" piece the turn is not so happy, and the *Orts* and *jedes* of the following, miss the points of the English verse, to say nothing of the young blood,*

Dürft' ich dir
Verrathen jenes Orts Geheimnisse,
Ein jedes Wort zernahmte dir das Herz,
Zu Eis gefrör' dein Blut.

But that I am forbid
To tell the secrets of my prison-house,
I could a tale unfold whose lightest word
Would harrow up thy soul, freeze thy young blood.

For terseness of expression the palm has been generally given to English as against German, and the contrast of *Jesus wept* with Luther's *Jesus went the eyes over* is a favourite instance of the superiority of English; but in one line we think Mr. Solling has fairly beaten us. We like his

Zu kalt sind Worte für ein hitzig Thun,

better than Shakespeare's

Words to the heat of deeds too cold breath give.

But in Brutus's—

If any; speak: for him I have offended. I pause for a reply,
the English is clearly better than the German—

Gibt's einen; so rede er; denn ihn habe ich beleidigt.
Ich halte inne, und warte die Antwort.

Mr. Solling puts forth his work as a class-book, and as such it cannot fail to be of great value. The inferences called out by this contrast on opposite pages of the two languages expressing the same thoughts must be most profitable to any student. There is no more fruitful method of study.

*Shakespeare's Jest Book: a Hundred Mery Talys, from the only perfect copy known. Edited, with Introduction and Notes, by Dr. Herman Oesterley. (John Russell Smith).—This well-known and capital collection of stories, most of them of the type of *The Wright's Chaste Wife* that we lately reviewed, derives additional interest from the circumstances connected with its reproduction now. Mr. W. C. Hazlitt reprinted in 1864 the then only known copy of the *C. Mery Talys*, which was discovered by Mr. Conybeare in 1819, and reprinted by Mr. Singer directly afterwards. But in this copy, "besides a quantity of smaller gaps throughout the whole book, in twenty-six of the tales several lines are wanting, and six are too much damaged" to be deciphered. Happily, Dr. Oesterley found a perfect copy of the original edition (Rastell, 1526) in the University Library at Göttingen; and this he has now reprinted and edited, with full references as to the originals of all the tales whose history he has been able to trace. "The differences between the two editions are very considerable," says the editor, "the present one having four tales, and omitting three, not contained in Mr. Singer's and Mr. Hazlitt's reprint, and also having three 'morals' wanting in the reprint." Whether Rastell's book of 1526, or the other undated fragmentary one, was the original, is not yet certain; but the latter looks to us like a pirated and altered version of the former, its sheets having been treated somewhat as Shakespeare's plays were treated in his lifetime. Anyhow, we are very grateful to Dr. Oesterley for his reprint of our famous old story-book; and he has, for a foreigner, done the work in our, to him, unnatural tongue very well, though he should have let some English friend see his proofs, and not have trusted to his own dictionary knowledge of English, since that has led him into some odd mistakes. On p. 151 he interprets the old strong perfect *flange*, flung (kicked the bottle with his foot), as an infinitive *flange* (pronounced *flanje*), to project out, deriving it from the noun *flange*. On p. 152, he thinks he improves the old spelling of jurors, *iuroous*, by reading it *iurorous*, instead of *iuroours*; on p. 139 to *dele* is explained *give* instead of *distribute*; on p. 56, *skyll*, the noun, is made a verb, and *can*, knows, is treated as an auxiliary; and on p. 6, the old notorious mistake of treating *I**

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was as I know, instead of the Anglo-Saxon *gewis*, certainly, is repeated; on p. 16, too, *perseyuynge* wants correcting to *perseyuynge*, perceiving; p. 62, l. 2, *he* should be *the*; and the *who* of the last line, corrected to *why*, might well have been left alone as meaning *hoo*, pooh! The modern English of the Preface is very good; but here, too, are little strange expressions—*has been for was*, p. vi; a negligence for negligence, p. vii.; and further, is No. 43 of our original, for No. 43, &c., is; *by for from*, p. viii., &c. The book is sure to call forth a second edition, and little blemishes of this kind should be removed from it. As a specimen of the stories, we take two at random: "One askyd a proctoure of Arches, lately before maryed, why he chose hym so lytell a wyfe: whiche answerde, because he had a text saynge thus, *Ex duobus malis, minus malum est eligendum*—that is to saye, in englyshe, 'Amonge euyll thynges, the lest is to be chosen.'" "In a marchantys house in London, there was a mayd whiche was gotten with chylde; to whom the mastres of the house came and chargyd her to tell her who was the fader of the chylde. To whome the mayde answeryd, 'Forsoth, no body.' 'Why,' quod the maystres, 'yt ys not possible but some manne muste be the fader thereof.' To whome the mayd sayd, 'Why, mastres, why may not I have a chylde without a man, as well as a hen to lay eggys without a cok?' Here ye may se it is harde to fynde a woman wythout an excuse."

Voyage en Italie. Par H. Taine. Tome I. Naples et Rome. (Paris et Londres: L. Hachette et Cie.)—During several months the readers of the *Revue des Deux Mondes* have been attracted by a series of articles entitled "L'Italie et la Vie Italienne." Not only did the name of their author warrant their excellence, but their intrinsic peculiarities singled them out for discussion and comment. M. Taine has done well in reprinting the first portion of them. The title, however, which he has given to the work is less expressive than that which he gave to his articles. A "Journey through Italy" very imperfectly conveys the comprehensive character of a book which, unlike most works of travel, contains a picture both of the people and the country at the present day under every aspect. How the Italians are educated and governed; what are their pursuits and what their prospects; the state of the Church and the policy of the Vatican; the monuments of antiquity, their value as works of art; the paintings of the great masters, their characteristics and the causes to which they are attributable; the life of the present day and in olden times—these are the questions to which M. Taine gives answers, and the topics which he treats with the erudition of a German professor and the grace of a lettered Frenchman. As an art critic, he is not only capable, but original. By him a picture is not labelled as good or bad on account of its age or its painter. He is not one of those dilettante judges who have the firm conviction of the absolute perfection of whatever gives them extreme pleasure. What he does is to find the reason why the work of art was produced, to inquire into the circumstances under which an artist laboured, and to decide to what extent the work is imprinted with the stamp of the time, and is a truthful expression of its author's mind. He exhibits a praiseworthy diligence in collecting facts concerning contemporary events. The opinion he gives with regard to the Neapolitans is, that they have vastly benefited by the change of government, and that the spread of wealth and education are transforming them into another people. The Romans of the poorer class are not, he thinks, very anxious for a change in their political condition. It is a minority that longs for emancipation from the despotism of the Pope. The members of this party display a want of practical spirit in speculating as to what would occur were their wishes realized. They suppose that the Church of Rome can become as liberal as it is now retrograde, and ignore the fact that, constituted as it is, to reform that Church would be to destroy it. Himself imbued with truly liberal ideas, M. Taine is yet unable to shut his eyes to the strength of the edifice which the Roman Liberals would overthrow. He sets forth the nature of the forces which buoy up the Church, and the counteracting ones which threaten to submerge it. To the volume itself we must refer our readers for the full discussion of this subject. It is a work which contains something to cause every man to reconsider his old opinions on most of the questions which interested or perplexed him. A more pregnant, yet thoroughly readable book on Italy has seldom been produced.

A CORRESPONDENT says that the picture with the full-length portraits of Henry VII., Empson, and Dudley, at Belvoir Castle—an engraving of which is given in Dibdin's "Northern Tour"—was probably copied from an illustration of the period, which he recollects to have seen in the possession of Bishop Coplestone, at the Deanery, St. Paul's.

BERTHOLD AUERBACH'S novel, "Auf der Höhe," has reached a second edition in its separate form—it having first appeared in the *Neue Freie Presse*. Friederich Volkmar's novel, "Adel und Edel," gives a most graphic picture of Palestine and the Holy Land in the first portion, "Die Kinder der Wildniss." In the second, "Die Söhne des Adels," the scene is changed to Western Europe, and the contrast is boldly sketched between Mohammedanism and Christianity. It is a book that is sure to be translated sooner or later, and, in the meantime, to readers of German we recommend it as one of the most interesting books of its class. Gildemeister's translation of "Don Juan" into German is, perhaps, the most perfect rendering of a great work from one modern language into another.

THE Mitre Tavern, Mitre Court, Fleet Street, in the cozy corner of the coffee-room of which stood Dr. Johnson's easy chair, over which was placed a cast of Nolleken's bust of the moralist, has just been pulled down. It was here that "Johnson of that ilk," as he called himself, in allusion to his residence in Johnson's Court opposite, during his Scottish tour, planned that tour, as he sat at supper, enjoying his port wine, "of which," says Boswell, "he sometimes drank a bottle;" here, too, which his biographer calls their "old rendezvous," Johnson, Goldsmith, and Boswell frequently met at nine o'clock to partake of that social meal. On one occasion, Ogilvie was there expatiating in Johnson's company on "the great many noble prospects of Scotland." "True, Sir," replied the Doctor, "I believe you have a great many. Norway, too, has noble, wild prospects, and Lapland is remarkable for prodigious, noble, wild prospects; but, Sir, let me tell you, the noblest prospect which a Scotchman ever sees, is the high road that leads him to England."

MR. HENRY HUTH has entrusted to Mr. Halliwell the editing of the old ballads (the celebrated Daniel collection), a copy of which he has determined to present to each of the members of the Philobiblon Society. The book will be for private circulation only.

ON Saturday last, Mr. W. Harrison Ainsworth, the proprietor of *Bentley's Miscellany*, obtained an injunction restraining Mr. Bentley from publishing the *Temple Bar Magazine*, Mr. Bentley, on parting with the *Miscellany* to Mr. Ainsworth, having covenanted not to publish any periodical of a like nature to *Bentley's Miscellany*. Vice-Chancellor Kindersley made the order, without prejudice to the publication of the magazine, until the hearing of the cause, and to the right of Mr. Ainsworth to damages or profits.

THE folly of the Bishop of Capetown's proceedings against the Bishop of Natal is evidenced by the increased popularity of the services and ministrations of the latter since he has been proclaimed "a heathen and a publican." The cathedral is always crowded when he preaches.

"ÆSCHINIS Orationes e Codicibus partim nunc primum excussis edidit, Scholia ex parte inedita adjecit Ferd. Schultz," is the title of an entirely revised edition of Æschines, the text of which has been rendered far more complete than that of any of its predecessors by the collation of six hitherto but partially-examined codices. These consist of a Vatican MS. of the thirteenth century; a Codex Barberinus of a somewhat later date; and of four Florentine MSS., one of the fourteenth and three of the fifteenth century. The new readings are very important, and scholars will welcome this edition as one of the best edited Greek classics of our day.

THE wife of Professor Mundt, of Berlin (Louisa Mühlbach), has received, at the hands of the King of Prussia, the gold medal in recognition of her novel, "Der grosse Kurfürst."

THE careful and able paper of Professor Childs, on the final *e* of the words of Chaucer's "Canterbury Tales," is well known to students of our early literature. He has just completed a similar treatise on the final *e* as used by Gower in Dr. Pauli's edition of the *Confessio Amantis*. Unluckily Dr. Pauli did not consult for this edition the best MS. of the poem, that of the Society of Antiquaries, but used as the basis of his edition an old printed text, which, however, he collated with other MSS., but to what extent

we have never tested. We hope that Professor Childs will not send his Gower paper to press until he has had Dr. Pauli's text collated with the Antiquaries' MS. On such a point as this much-vexed doctrine of the final *e*, none but the best MSS. of a work should be counted as authorities. We may also mention that the British Museum bought a 14th century MS. of the *Confessio* at Lord Charlemont's sale, but it is not yet accessible to readers.

M. ALFRED VON ARNETH announces as a companion to his "Briefwechsel zwischen Marie Antoinette und Maria Theresia" the unpublished correspondence of Marie Antoinette and Joseph II. and Leopold II., from the Vienna archives.

GERMAN Jewish literature has just been enriched by the publication of the first instalment of the eloquent sermons of the late Dr. Michael Sachs, of Berlin.

A NEW fortnightly antiquarian journal has been started at Toulouse, under the title of *Le Moniteur de l'Archéologue et du Collectionneur*. It consists of eight quarto pages, in double columns, and the first number appeared on the 10th ult.

M. LOUIS FIGUIER has just put forth the first number of his "Merveilles de la Science," which will consist of 200 livraisons, and be illustrated with 800 woodcuts.

VICTOR HUGO'S "Travailleurs de la Mer" has already reached a fourth edition. The author of the "Misérables pour Rire" announces a "parodie en vers comiques" of the "Travailleurs de la Mer."

WE had occasion to notice last year the liberality of a private member of King's College, Cambridge, in providing, at his own expense, two open exhibitions of 50l. each annually, in order to attract fresh members to the Society. His example has been followed by others, who in the same liberal spirit have provided two more exhibitions of the same value. They are tenable for three years, and are open to all comers. The examination is to take place early in June. Further particulars may be obtained by applying to the Rev. W. R. Churton, Tutor of the College.

THE new Whitehall Club, Parliament Street, will be open to members on the 1st of May.

M. J. BARTHELEMY ST. HILAIRE has just published, for the first time, a French translation of Aristotle's four books, "De Cælo," a volume of 497 pages, 116 of which contain an elaborate introduction.

WE hear that the first year's subscription to the Sanskrit Text Society has reached the sum of 380l. The principal editor requires a thousand a-year for the proper carrying out of his magnificent scheme for the preservation and making known of the unedited and fast perishing remains of ancient Hindu literature. England has done little enough towards the work as yet; and as Government helps but little still, individual liberality should supply its shortcomings. Badly as our own early literature is treated here, and miserable as the subscription lists of our best printing-clubs are, we should gladly see Professor Goldstücker's Sanskrit Text Society receive the full measure of support that he desires for it.

MESSRS. SMITH, ELDER, and Co. give us "Counterparts; or, the Cross of Love," a capital tale, by the author of "Charles Auchester," as their shilling monthly volume of Standard Authors. "Leonora; or, Fair and False," by the Hon. Mrs. Maberly, is to follow next. Of all cheap serials for railway-readers these "Monthly Volumes of Standard Authors" seem to us to meet the demand best in every way. The ready shilling is quite enough to pay for such a railway luxury, and Messrs. Smith, Elder, and Co. are capital caterers for the railway public.

MESSRS. FREDERICK WARNE and Co. send forth "The Pearl Edition of Walker's Pronouncing Dictionary, thoroughly Remodelled, Enlarged, and Adapted to the Present State of English Literature, by P. Austin Nuttall, LL.D.," a marvellous shilling's worth, considering the beauty of type and paper, and the care bestowed upon the reproduction of this very useful travelling companion.

THE *Book-Worm*, by J. Ph. Berjeau, has reached a second number. In number one the description of the overcrowded state of the ancestral hall of a well-known collector of manuscripts was amusingly described. In the present number, we have a no less amusing anecdote of how the Rev. Mr. Brand spent Sunday buying Caxtons, Wynkyn de Wordes, Pynsons, and Laurence Andrews of a Jew, and, in the enthusiasm of the amateur and collector, forgetting

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the duties of parish priest and parson, leaving the congregation of his church to be dismissed by the beadle, because, in the excitement of studying signatures, catchwords, and printers' devices, he had overlooked the Sun's punctuality in keeping his stages as he travels—according to the tale of the "King and the Abbott"—round the earth. The facsimiles in this second number are a little better than those in number one, but there is still great room for improvement.

MESSRS. DEAN and SON issue Debrett's "Peerage" and Debrett's "Baronetage, Knightage, and House of Commons," with every improvement to suit the wants of the day. In their present form these useful volumes are likely to be as popular as their great predecessors were, which were found in every house where there were traditions of grandfathers and great grandfathers. The chief improvements of this new issue by Messrs. Dean and Son we noticed a twelvemonth ago, and to what we then said we have now to add that in this year's edition several valuable additions find a place. In the "Peerage" we now find a brief biography of the immediate predecessor of each living peer; the biographical notices of the younger sons and married daughters of peers have been considerably enlarged; and some most useful additions have been made to the ecclesiastical portion of the work. In the list of members of the House of Commons in the "Baronetage" a brief biography of each is given, together with his places of residence, club, &c.; the place he represents, and the number of its population and registered electors. As a ready book of reference for the library table this improved edition of the twin volumes leaves nothing to be desired.

THE Cambridge Tripos list was published on Thursday morning: 1, Smith, King's College; 2, Smith, St. John's; and 3, Humphreys, Trinity. First class, 16; second class, 31; third class, 23.

MRS. BROOKE publishes the last words of her late husband, Mr. G. V. Brooke, who was one of the passengers in the London. They were found in a bottle on the Brighton beach, and have been forwarded to Mrs. Brooke by Mr. C. A. Elliott, of Trinity College, Cambridge. The note is written in pencil on a torn envelope, and reads as follows: "11th of January, on board the London. We are just going down. No chance of safety. Please give this to Avonia Jones, Surrey Theatre.—GUSTAVUS VAUGHAN BROOKE."

AMONGST recent announcements we notice, "The Church of England Presentation Records," which is to contain notices of testimonials and thank-offerings from parishioners to their clergy. Poor men! First to be be-teapotted and be-slippered, and then to have the record of the doubtful honour paraded through the length and breadth of the land!

MR. GÖSCHEN, M.P., and Mr. Tite, M.P., have been elected Commissioners for the Paris Exhibition.

THE late Dr. M'Caul's letters, chiefly in reference to Bishop Gobat's episcopate, will be immediately republished in a collected form, with notes and additional documents. Dr. M'Caul declined the Prusso-Anglican mitre of Jerusalem in 1841, in favour of Dr. Alexander, a converted Jew, who was the first Protestant Bishop of Jerusalem.

A SUCCESSOR to Bishop Colenso in the See of Natal has been selected, it is said; but as several of the Bishops differ from the Primate, and will certainly refuse to recognize a second Bishop in the same see, let us hope that the Church will be spared the scandal of his consecration.

"It is confidently reported," says the *Glasgow Morning Journal*, "that a libel will be prosecuted against the Rev. Dr. Macleod at the next meeting of the Presbytery of Glasgow," no doubt on account of the Doctor's views on the Sunday question.

THE one sermon preached on the Day of Humiliation, Tuesday last, which was the most pertinent and convincing, was that delivered in Westminster Abbey by Dean Stanley. He selected for his text St. Matthew vi. 10: "Thy will be done," because these words summed up the feelings that ought to be in all our minds in any great calamity, national or individual. They expressed resignation and submission to the event, whatever it might be. Why a calamity should visit this country and not that, why a disease should afflict the human race through the sufferings of dumb animals, were mysteries which could not be explained. Science and religion has but one answer to give, "Thy will

be done." The nations upon whom this cattle plague has fallen are not to be considered sinners above the other nations of Europe; the counties of England on which the plague has fallen, have not sinned beyond other counties; nor are the individuals who have suffered most worse than those upon whom the calamity has fallen more lightly. All are in the hands, as it were, of a great giant, or rather in the hands of a loving Father, to whom we pour out our sufferings and afflictions. All the beasts of the field are his, and so are the cattle upon a thousand hills. He can preserve in his great kindness both man and beast. His will, therefore, be done. These feelings in the mouth of a Christian rise higher than mere feelings of resignation and submission; for the Christian can view any calamity with cheerfulness, because he knows that it proceeds from one who knows and cares better for us than we know or care for ourselves. This or any other calamity is not a mere disastrous or abstract law, not the work of some irresistible machine, but of the careful, deliberate will and design of a moral and reasonable being like ourselves. Whatever opinions might be entertained as to the changeableness of the laws of nature, there can be no doubt that God leaves free the humane will, and that it is in the power of every man to bring that will into conformity with the will of God. All these things teach us the necessity of caution, frugality, and diligence, for as the old proverb says, "We must get ready our spindles, if we expect God to give us food." An event like the present is a stimulus to activity in those scientific researches by which God's supreme will in the works of nature has been made known to us. It is a call to us to exercise calm, patient inquiry—to exercise it truthfully, reverently, and cautiously, for the honour of God and the relief of man. Such an event as this, again, is a call to charity; and this feeling, it will be remembered, was brought out by the great fire of London, which stimulated Charles II. to unwonted benevolence, while it calmed down the religious rancour which prevailed between the clergy and the Nonconformists of those unhappy times. What a blessing might not this calamity prove, if it turn the hearts of the selfish in these days, as in those days a similar calamity turned the heart of an idle and profligate king. This calamity may awaken in us feelings which we never understood before, inducing us, perhaps, to deal less cruelly with poor dumb animals. It may also tend to turn the thoughts of some to the necessity of relieving the pressing wants of our fellow-creatures.

THE Royal Literary Fund during the past year has distributed 1,685*l.* among fifty-two authors, in sums varying from 10*l.* to 100*l.* in each case. Archbishop Trench and the Duke of Devonshire have been added to the Vice-Presidents; Professor Owen has been elected to the Council; and the Dean of Westminster, Mr. A. J. Beresford-Hope, M.P., the Rev. Charles Merivale, B.D., and Dr. Copeland, to the General Committee. Lord Houghton has promised to take the chair at the anniversary dinner on the 2nd of May.

THE Clergy Club in Charles Street, Haymarket, is now open. It consists of 700 clergy and 300 laymen, the laymen paying an entrance-fee of ten guineas, and the clergy being admitted at a sliding scale—those resident within twelve miles of Charing Cross at 6*l.* 6*s.*, and those beyond that distance at half that sum.

BELLE BOYD, the lady of Confederate proclivities, is, after all, not identical with Miss Emma Harlinge, who has been lecturing in England lately, as the public supposed.

THE Count de Christen is about to publish an account of his captivity in the prisons of Naples.

THERE is vacancy at Liverpool College for a classical master for a junior class, who will be required to enter upon his duties at Easter. Open to graduates of Oxford and Cambridge only. The salary to commence at 120*l.* a-year. Applications, with testimonials, to be forwarded to Mr. Gregory Jones, the secretary.

THE examinations at Chelsea for admission to the several military colleges commence, for Sandhurst, 18th June; for Woolwich, 2nd July; and for the Staff College, 23rd July.

A SUB-COMMITTEE in connexion with the Society for the Propagation of the Gospel, 79 Pall Mall, has been appointed to receive the report on applications for the vacant chaplaincy at Rome. The "Woodward Memorial" at Rome will, it is hoped, be an English Church. The Rev. J. S. B. Monsell, of Egham, is, we

believe, forming a committee for the purpose. The Society for the Propagation of the Gospel, at their meeting on the 16th inst., proposed a resolution for consideration, with a view to its adoption at their meeting on the 19th of May, absolving their missionaries in Natal from obedience to the Bishop, and delegating the episcopal ministrations to the Bishop of Capetown. This resolution, if adopted, is likely to bring a formidable rival to the Society into being.

MESSRS. TRUBNER & Co. are about to publish "The Last Days of the Rajah Ramohun Roy by Mary Carpenter;" and two very interesting series of photographic sketches, on a large scale, by Alexander Gardner; the one taken on the spot during the recent civil war, "Photographic Sketches of the War," in two folio volumes, and the other "Rays of Sunlight from South America," in one volume folio. They forward to us a pamphlet of sixty-eight pages, "The Open Competition for the Civil Service of India, by Manomohan Ghose, of the Calcutta University and Lincoln's Inn."

THE Share List of the Suburban Village and General Dwelling Company closes to-day for London, and on Monday for the country.

CORRESPONDENCE.

[If "X. Y. Z." will communicate his address, the Editor will explain Addison's mistake to him, &c., &c.—ED.]

CHRONICON PASCHALE.

To the Editor of THE READER.

Sir,—As you gave in your last number an excellent *resumé* of the paper read by Mr. Lewin, on the 15th instant, before the Society of Antiquaries, on "The Mosque of Omar," I ask your permission to bring under the notice of the numerous classical scholars who read your journal an ingenious and, for anything I know to the contrary, a correct explanation offered by him of a passage in the *Chronicon Paschale*, which has hitherto been a puzzle to critics. The *Chronicon*, after referring to the insurrection of the Jews, under their pretended Messiah, Barabach, A.D. 131, and the final subjugation of them by Hadrian, A.D. 135, speaks of the restoration of the city by Hadrian, under the name of *Ælia*, and then enumerates the public works erected by him in *Ælia* in the following terms: τὰ δύο Δημόσια καὶ τὸ Θέατρον, καὶ τὸ Τρικάρμαρον καὶ τὸ Τετράνυμφον, καὶ τὸ Δωδεκάπυλον, τὸ πρὶν ὀνομαζόμενον Ἀναβαθμοὶ καὶ τὴν Κόδραν. The two Δημόσια were Baths, the Theatre explains itself, though the site of it is unknown. The Τρικάρμαρον was derived by Mr. Lewin from τρεῖς καμάραι, signifying the Triple Arch; and recent exploration had, according to him, established the fact that the present arch of Ecce Homo, in the Via Dolorosa, was merely the central arch, and that there had been originally two side arches, one of which—the northern—still existed in the walls of the French convent, and that the southern had only been removed a few years since. Dr. Robinson, therefore, was right in his conjecture that the arch of the Ecce Homo was attributable to Hadrian, being, in fact, the triumphal arch, or Τρικάρμαρον, erected by him to commemorate his victory over Barabach. The Τετράνυμφον was left in obscurity. The Δωδεκάπυλον (or the Twelve-gates, as the word signifies) was identified with the raised platform, or terrace, 450 feet by 550, within the Harem, and ascended on all sides by steps. It had for this reason been anciently called the Steps, or Ἀναβαθμοὶ, and appears by that name in the Acts of the Apostles when Paul was carried out of the Temple—ἐπὶ τοὺς Ἀναβαθμούς (Acts xxi. 55); but when Hadrian added portals at the top of the steps, the name was changed to Δωδεκάπυλον, or the Twelve-gates. No doubt in the time of Hadrian there were three flights of steps on each side of the Terrace, making twelve in all, whence the name of the Twelve-gates; and there were still three on the west side, but four of the others had disappeared, as only eight out of the twelve now remained. It was said that the last word, Κόδραν, had no meaning in Greek, and could be nothing but the Latin Quadram, or Square; and this Mr. Lewin identified with the Sakrah, or sacred rock in the centre of the terrace, which was of a quadrilateral form, and was so described by the ancient writer Edrisi. It was suggested that the Image of Jupiter Capitolinus was placed by Hadrian upon the Quadra, now the Sakrah, and that the Temple to Jupiter Capitolinus had been built over it by Hadrian, and rebuilt by Maximin about A.D. 310. AMICUS.

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PHÆDRUS ON REFORM.

Reginæ in minimas se voce Britannia partes
Subsecat, et vitam credit inire novam.
Fallitur. Infectum Plebs judicat ista laborem;
(Est qui * foemineas vult numerâsse manus)
Olim credidimus Ventrem regnare supinum,
Omnia nunc ambit, brachia, crus, caput, os.
Care, quid insanis? Totum converteris Orbem
In stercus, Mundus denique, Venter, eris?

* J. S. MILL.

ABOUT THE STREETS.

[No. II.]

NAMES OF STREETS.

THE system which prevails in some American towns, of numbering streets as we in England number houses, is simple and convenient. But it labours under some disadvantages. It marks neither time, person, nor event. There is no indication in it of the period of construction, or of any circumstances connected with the locality. It bears no tradition on its face. Numerical streets may be easily traced, especially when they are built at right angles; but there ends the utility of numbers. The stranger may readily find his way through them; but for all the information he gathers as he passes on, he might as well travel through avenues of dead walls.

In London, on the contrary, the public places have been named, from the beginning, on an intelligible principle of appropriateness. The names of streets and gates and wards were evidently chosen for their local fitness, and not adopted by accident or caprice. In the reign of Elizabeth, the City walls enclosed the whole of the inhabited region, the districts lying westward, partly marked out for streets, being little more than a skeleton map awaiting future colonization. The form of the City was, and is, an irregular square, bounded on the southern side by the river, and on the three other sides by a wall, pierced at intervals by gates communicating with the great country roads, north, east, and west. Here we have the nucleus of the great City, and here, in its very origin, we find the names of places, nearly all of which are still preserved, illustrating local or historical features. Aldgate, on the eastern side, was the old, or oldest, gate, as its name implies, and next in antiquity comes Aldersgate. On the western side, in a straight line across the City of about a mile and three-quarters, we have the last of these structures, its comparatively modern date being signified in its title, Newgate. The other gates also clearly carry their own stories in their names. Cripplegate was so called from the cripples who used to infest the neighbourhood to collect alms. Bishopsgate derived its title from the Bishop of London. According to some authorities, Ludgate commemorates no less a personage than King Lud; but it is proper to add that there are historians who contend that it ought to be called Floodgate, it being the gate that opened on the river Fleet. The City, thus surrounded and commanded by special en-

trances, was a mere speck, intersected by narrow and incommodious streets, running in and out in all directions. A good pedestrian might have easily walked round the whole of Elizabeth's London in a couple of hours.

Keeping still within the verge of the City, a glance at some of the old localities which to this day retain their early appellations will show with what a directness and integrity of purpose our worthy ancestors acted in this matter of names. Instead of seeking to exalt themselves in the eyes of posterity—as we of a later age can rarely resist an opportunity of doing—they embodied a tradition of the spot. Houndsditch was so called from a ditch which was rendered intolerable by the stench of dead dogs whose bodies were thrown into it. Clerkenwell takes its name from an old custom of the parish clerks, who used to assemble at a well in the neighbourhood for the purpose of acting Scripture plays. The Barbican speaks for itself. A barbican or watch-tower, from the top of which might be seen a fine view of the town, formerly stood here. The actual spot on which the tower was built is now ignominiously occupied by a watch-house. Cheapside, as all the world knows, is simply *chepe*, a market; and, in like manner, Cornhill is merely a corn market established on a piece of rising-ground. Particular localities were distinguished by particular trades or callings, and took their names accordingly. Bread Street, for instance, was a bread market in the old times, the bakers being prohibited by stringent City regulations from selling bread in their shops. Cloth Fair, inhabited chiefly by drapers and mercers, was the resort of clothiers from all parts of the country. Milk Street was the great market for milk; as Mincing Lane, called after the Minchuns, or nuns of St. Helen (who had their priory and hall in another part of the City, where the name of St. Helen is still retained), was the principal sugar market. Staining Lane, Cheapside, was so called because it was chiefly inhabited by painters. Similar cases might be easily accumulated. They all belong to a remote period. The usage of collecting certain trades in certain places—as the booksellers collected about the base of St. Paul's—was probably a useful and economical arrangement so long as the inhabitants were few in number and lay within narrow limits; but as the population increased and spread, these centres were broken up, and the crafts they monopolized were dispersed.

We need not confine ourselves to the City for instances of memorial names. They abound everywhere, within and without the walls. Amwell Street, in Pentonville, draws its name from a place in Hertfordshire where the New River has its rise. Bow Street, Covent Garden, indicates by its name the shape in which it is built, that of a bent bow; as Crooked Lane in the City is very properly so called on account of its windings. Long Acre is so designated from its long track-way down the building-ground known as the Seven Acres. Fivefoot Lane is a lane measuring only five feet in breadth at one end. Seven Dials owed its title to a column which originally stood in the centre, having seven dials facing the seven streets that meet on that spot. Brick Court was the first brick building in the Middle Temple. Vinegar Yard is a corruption of Vine-garden Yard, the place having been

originally a vineyard. The sites of other vineyards are marked in other quarters by names which still survive; Vine Street, near Holborn, built over the vineyard of Ely House; and Vine Street, Westminster, deriving from the vineyard of the old palace. Lombard Street comes down from the Longobards who originally settled there; and Selden tells us that Canon Row, Westminster, derives its name from having been the residence of the canons who did service in the King's Chapel. Streets called after the colours in which they were originally painted sometimes occur, such as Green Street and Orange Court, which still exist, and Blue Street, which is gone; but names are of no permanent interest that represent only adventitious and evanescent incidents.

The custom of calling streets after great houses, or wealthy or celebrated individuals, is of more modern growth; and examples of it may be gathered in clusters as we leave the City behind us, and advance into the new world of London in the West. Generals, admirals, and kings, to say nothing of the rich tradesmen who retire upon blocks of small Squares and Paragons and Terraces in the suburbs, come in for a large share of this true British architectural egotism. Wellington and Albert appear at the corners of streets as frequently in our day as the heads of Keppel and Howe, in the old Dibdin times, used to be seen swinging over the doors of patriotic ale-houses; we have Kings' and Queens' Streets out of number; and the Grosvenors and Beauchamps run a race of popularity in the thoroughfares with the Gunters and the Cubitts, who have dedicated miniature Babylons to the glorification of their family names. There are some exceptions, however. It is not all mere pomp and vulgar vanity. There are, here and there, personal remembrances which we would not willingly lose, and records of noble and famous houses which belong to our public history. Amongst these Abingdon Street, called after the sister of Lord Mounteagle, Mary Abingdon, or Habington, who wrote the letter through which the Gunpowder Plot was discovered, deserves to be distinguished. There are two obscure streets in the same neighbourhood, Barton Street and Cowley Street, named after an actor of note in his day, Barton Booth, of Cowley, in Middlesex, the original Cato; and not far off, in Scotland Yard, there once was a little court, called Killigrew Court, after Tom "of facetious memory," as the obituary chronicles say. Kings take their chance with their subjects of being swept away in the march of improvements; and of two streets inscribed to two of the Stuarts only one remains, Charles Street, St. James, which was called after Charles II.; while Charles Street, Covent Garden, named in honour of his father, has disappeared, and Upper Wellington Street risen in its place. But King Street and Henrietta Street, Covent Garden, named after Charles I. and his Queen, are still in existence. Travelling west, potent families and historical dynasties meet us at every step. The Howards and Arundels, running from the Strand down to the river, a neighbourhood which recalls one of the most dastardly deeds in the annals of town life—the murder of poor Mountfort, the player, in that brief space between Surrey and Norfolk Streets; a little

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further on, a group of streets carrying all the names of the Duke of Buckingham; the Bedfords spreading over the whole district of Covent Garden; and the Westminster family variously represented in Eccleston and Eaton Squares, and the surrounding quarter. The West End draws nearly all its street names from personal sources, and most of them are more or less illustrious. There are legions of streets inscribed with such names as Brook, Curzon, Arlington, Clarges, Bentinck, Brownlow, Hanover, Marlborough, Albemarle, Monmouth, Sackville, Sheffield, Berkeley, Talbot, and scores of equal dignity.

Leigh Hunt had a theory that a tree or shrub of some kind was visible from some one point in every street in London. That must have been in the happy times "long ago," when the houses were thatched with pancakes and the streets were paved with gold. The London of to-day is a stony Babel, in which nature has hardly a speck of earth to set up green leaves in. But it is not wholly destitute of pastoral reminiscences, by which poetical associations are occasionally awakened in the most unexpected places. In miry Smithfield, for instance, we have Nightingale Lane, which, at all events, presupposes trees for birds to nestle in. Then there is Primrose Hill, which formerly bore the scarcely less suggestive name of Green Berry Hill; and Orchard Street, which we are afraid does not come from an orchard, but from a distant estate belonging to Lord Portman; and in the Temple we have Elm Tree Court and Garden Court, both filling the imagination with rural images in the midst of the driest and least imaginative of human pursuits; and in the heart of Fleet Street Flower-de-Luce Court; and Willow Walk in Pimlico, where there were formerly dismal flats and water-courses, on the margins of which willows might have flourished, although the memory of living man furnisheth no account thereof; and Hatton Garden, which really occupies the site of Sir Christopher's pleasure-grounds; and Hay Hill, not deriving its name, however, from fragrant hay, but from the Eye, or Aye brook which ran close by, and gave its name to Upper and Lower Brook Streets, and also, perhaps, to Tyburn, which has been supposed to be a corruption of Ayburn; and Saffron Hill, of most unsavoury memory; and Rosemary Lane, Whitechapel, otherwise known as Rag Fair, which has in a singular manner belied its aromatic derivation, and instead of being "for remembrance," is the spot of all others in the metropolis one would strive to forget, in spite of its having given birth to Brandon, the executioner, who was a Rosemary man; and Hedgē Lane, now Whitcomb Street, Pall Mall East, where Monmouth had a house; and Ivy Lane, Newgate Street, so called because the walls of the Prebends' houses were covered with ivy to the roof. Green Arbour Court and Breakneck Stairs, as the steps down from the court were called by Ned Ward, should not be overlooked in this enumeration. The place possesses some literary interest, as having been at one time the residence of Oliver Goldsmith, who, says Bishop Percy, lived in a dirty apartment here, where he had but one chair. It leads, or used to lead, into Seacoal Lane, also called Limeburners' Lane, because lime was burned there with seacoal. Finally, there was, now nearly

blotted out, Rose Alley, or Rose Street, Covent Garden, a crooked and squalid lane, where Dryden was waylaid by hired ruffians, and Butler died of starvation. Why this ill-favoured and smutty alley was called Rose Street, above all White Rose Street, its original designation, baffles speculation. Where could this dragged white rose have come from? It was certainly not of the time of the Yorks, who, long before, were shut up in that narrow house, which, small as it is, has accommodation enough for the whole human race. At a later period, it was called Red Rose Street; but the red rose is as great a mystery as the white. It could not have come from Covent Garden Market, because the market was not in existence when the alley was built. The only feasible conjecture left, is that the name may have had something to do with the notorious Rose Tavern, which stood in Russell Street, close to the King's Playhouse.

PROTESTANT ITALY.*

THE regeneration of Italy is a subject interesting alike to the politician and the man of letters. But it is perhaps still more so to a believer in the necessity of some great moral basis for the guidance of the world, and yet more intensely to the thorough theologian. The fall of the Papacy, by which we mean the permanent departure of the Pope from Rome, or his complete subjection to the Royal prerogative of the King of Italy, will be interpreted by many as the commencement in some sense of the Millennium. Others will see in it only the natural extinction of an organism which has long outlived its time, and has been perpetuated rather by the jealousy of those who are anxious to secure its inheritance, than by any superhuman craft on the part of its effete representatives. It will be an event, however, which will teach its own lesson; for the result must, for many reasons, necessarily be one the true meaning of which cannot be long hid. The forcible abduction of Pius VIII. by Napoleon had been paralleled before. Sacrilegious violence had, in rude times, been applied to the Head of Western Christendom, and the reaction had been interpreted, whether always with justice or not, to the advantage of the Church. But the refusal of his own subjects to endure the residence amongst them of a Chief, is fatal in these days to the title of a Sovereign; and the knowledge that such a refusal is to be the consequence of their liberty to express it, is a demonstration that for them at least his spiritual influence is already extinct. But are the regeneration of Italy and the fall of the Papacy synonymous terms? And if Italy can do without the Pope, may not the Pope be able to do without Italy?

It is not likely that men of deep religious feeling, or even those students who are accustomed to speculate upon the causes and the necessary or unaccountable concatenation of historical events, will be content to wait patiently for the few years, or even perhaps the few months, which appear to carry the burden of the most important public event which will affect the West since the Reformation. Prophecy will be ransacked by some, whilst scholars

may only remark, with a Gibbonian sneer, that the first certain thing we know of in the history of Rome is its occupation by the Gauls, and that it is very singular that it can fall into the sleep of those annals who prove the happiness of a nation by their own dulness only through the final departure of their modern descendants. Politicians will view with some apprehension the possible ascendancy of a national Power which once overshadowed the world. There is but one class of men who will look on with a triumph in which there will be no alloy. Those enthusiastic men of faith who believe the Bible tells its own story, and in the imminent evangelization of the Peninsula, will rejoice in the opening of a career which, like that of the first Mohammedans, bids fair to unite the peculiar raptures of the missionary with the solid satisfaction of the conqueror. It is impossible not to envy the towering hopes of such as have persuaded themselves that the Gospel is spreading triumphantly along the three great lines of Italy's railway system, and that the main channels of her commerce and her spiritual electrification are in effect one and the same. If this indeed be so, it would not be the first time that religion and wealth have gone hand in hand, and that the *colporteur* has borne in his wallet the newest fashions for the body, and the newest food for the mind. But without being carried away by this very natural expectation on the part of men who have been brought up in the traditions of Wesley, and who believe that they inherit in a peculiar degree the tenets and the practice of the early Reformers, and perhaps even of the early Church, we may well believe that so great an event as the enthronement of the Italian monarchy in Rome cannot take place without a searching investigation by the educated into the doctrines of those who will certainly proclaim in tones which cannot fail to be heard that the Immaculate Conception has been the last act of dogmatic folly which She whose name is "Mystery" will ever have the power of committing. It will not be in their eyes the betrayer of Italian liberty, or the supporter of Italian brigands, that will be justly punished with hopeless exile, but the Head of Mariolatry, and the consistent perverter of the Word and Book of Scripture.

We are not of those who apprehend any great dissolution of the foundations of morality when an ordinary archbishop shall sit on St. Peter's chair, any more than we expect to find any very important treasures in the archives or among the manuscripts of the Vatican. Nor do we even think, as some Professors of History have done, that any great shock will be thereby given to other National Churches which are not now in communion with Rome. Not that we suppose the Ultramontane tendencies of men who have always felt inclined to resist the authority of their earthly prince will find any difficulty in attaching themselves to the shadow, wherever it may fall, of him who will assert that in exile he cannot be to whom the uttermost parts of the earth are a possession. But the time is not yet come for any European nation to dispense with an established hierarchy, and the overthrow of the only ecclesiastical government which has systematically cultivated a desert for its eyes to rest upon will rather remove an objection to than establish a precedent against every such

* "The Awakening of Italy and the Crisis of Rome." By the Rev. J. A. Wylie, LL.D. (The Religious Tract Society.)

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dominion. It may be perfectly true that the national churches of Europe have branched off from that one which soon may be a "byword" amongst them. But that one was founded temporally on the forged donation of Constantine, and spiritually on the forged decretals of Isidore. And the character of these spurious documents was no great secret at the time of their production. They were suited to the age, and the age was suited to them. But the offshoots of superstition are no more bound up with the fate of their parent than the branches which are grafted into the true remain dependent upon the existence of the wild olive-tree. The stone of many a Pagan worship remains to this day built up in the walls of our churches, but the demon has long since been exorcized, and the mode of his enchantment is known only to the learned. The long aisles of our cathedrals have remained innocent of processions for centuries, and though the fall of Madonnas and saints may reverberate through their arches, our deans and bishops will sit none the less softly in their stalls.

Nor are we any believers in the very profound policy which some soft-hearted observers find in the conduct of Papal affairs in this crisis of their fate. The senators once sat almost as stolid and as silent in the Forum as the cardinals do now in the Vatican. If they could have remained always motionless, they might have continued to pass for the gods they were at first supposed to be. But the vigorous allocution of one destroyed the charm, and his example has evidently been thrown away on his representative. The *non possumus* should have been extended to speech as well as to action. To do nothing is very clever; but to say nothing would have been masterly. The Paolotti are poor substitutes for the Jesuits, and the secularization of so many monasteries deprives them of the schools in which abilities could be trained in that implicit obedience to the will of a Superior in which, after all, the great strength of the Order consisted. The knowledge of human nature and of the present state of European thought, in which both the foes and the friends of the Papacy consider it to be so transcendent, is certainly not shown either in its theology or in any of its public acts. Obstinacy is often thought to have some consummate wisdom behind it, until it stands revealed and condemned by the event. We expect to see the "Mystery" collapse very much like the Confederate army when their flank was turned at Richmond. But whether Italy will forthwith become Protestant is quite another question. Her priests may marry, and we may see the Sacrament administered to the laity in both kinds. The exaltation of Mary above every other name may also come to an end; but much must be altered in the Italian character before candles will cease to burn for ever on the shrines of saints, and the sober routine of dull sermons will be substituted for the dramatic representations of the triumphs, the passions, and the supreme moments of Christianity.

PUBLICATIONS OF THE WEEK.

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SCIENCE.

GEOLOGICAL MAPS.

Geological Map of England and Wales. By Professor A. C. Ramsay, F.R.S. 3rd Edition. (Stanford.)
Water-bearing Strata around London. With Map. By Mr. Prestwich. (Van Voorst.) 1851.
The Resources of the Tyne, the Wear, and the Tees. With Map. By Mr. N. Wood.
Greenough Map. (Published by the Geological Society.)
Physical Geology and Geography of Great Britain. By Professor Ramsay. With Map. 2nd Edition. (Stanford). 1864.
Scenery of Scotland, Viewed in Connexion with its Physical Geology. With New Edition of Geological Map of Scotland. By Mr. Geikie. (Macmillan.) 1865.

THAT Professor Ramsay's map is approved by the public is shown by the fact that it has reached a third edition; and it would be strange if it were not so, for the author, from his official position as Director of the Geological Survey of Great Britain, is second to no one in personal knowledge of the geology of our island.

Each edition has shown many improvements, owing both to the publication of fresh sheets of the Geological Survey Map, and to the discoveries of various authors, whose work may be found in the *Journal of the Geological Society* and other scientific periodicals. The more important corrections in the present edition are: (1) The colouring as Permian of the large tract near and north-east of Carlisle, heretofore classed with the New Red Series, as was also the strip along the coast from St. Bee's Head to Morecambe Bay; (2) some small changes in parts of the Lake District; (3) improvements in the mapping of the Magnesian Limestone of

Yorkshire, Nottinghamshire, &c.; (4) the far greater detail, and the many faults shown in the important tract of Coal Measures and associated rocks in the neighbourhood of Manchester and Preston; (5) the far more exact character of the boundaries of the Oolitic rocks of Northamptonshire, Oxfordshire, Buckinghamshire, and Bedfordshire, and of the Cretaceous rocks of the last two counties; (6) the detailed work of the western part of the London Basin; and (7) the division of the Hastings Beds from the Weald Clay, and other improvements in the boundary-lines of the Weald district. A good addition has been made in the shape of large figures, engraved on the chief masses of each great set of beds, so that a chance slip in the colouring need not mislead, but may be corrected by looking at the index-mark. The scale is twelve miles to the inch, and there are thirty-one geological divisions, the colouring of which is throughout in accordance with that of the maps of the Geological Survey, to which, therefore, this map may well serve as an index.

One of the chief features of this work is that the marginal space is filled with a number of capital transverse sections, which add greatly to the value of the map, and are all well fitted for enlargement into diagrams for lectures. These are not mere sketches, but have been carefully drawn along lines laid down on the map; and they illustrate not merely the order in which the different formations come on one above the other, but, what is quite as important, the manner in which this succession takes place. They show the unconformities, disturbances, and escarpments of all the great formations; and, as their vertical scale is exaggerated as little as could be, these are not magnified in the way that is unluckily common in geological sections. No. 1 lays before us the structure of the country along a line N.W. and S.E. across the island from the Menai Straits to Hastings, and shows the highly disturbed and twisted Cambrian and Silurian rocks of North Wales with their associated traps and felstones, the Old Red Sandstone and Coal Measures of the Titterstone Cleve Hills, the New Red Sandstone and Lias of the Vale of Evesham, the various members of the Oolitic Series of Oxfordshire, the Chalk escarpment, the trough of the London Basin, the reappearance of the Cretaceous beds in Kent, and the low dome of the Weald. No. 2 runs from Caernarvon Bay on the west to the Wash on the east, across many of the same formations as the former section, and showing the great saddle of the Carboniferous rocks which forms the Derbyshire Hills. Nos. 3 and 4 are drawn north and south across the Isle of Wight and the Isle of Purbeck respectively, and illustrate the great denuded fold which runs nearly east and west along the strike of the Tertiary, Cretaceous, and Oolitic formations of those parts, the higher and lower beds having but a small dip, whilst the central ones are sometimes nearly vertical.

Besides these sections there are two others, not along any particular line, and which, therefore, are called "diagrams," the one "of the general stratigraphical relations of the Secondary rocks," and the other of the Primary formations.

We have noticed two small mistakes in the map, but they are unimportant and refer only to surface-deposits; the northern part of the Isle of Man is formed mostly of drift, not of alluvium; and the wide tract coloured as consisting of the latter in the valley of the Thames above London is really a great spread of gravel and brick-earth. In the Greenough Map, and in that by the late Mr. N. Wood, a small patch of Old Red Sandstone is shown on the eastern side of the great mass of greenstone of the Cheviot Hills, whilst Professor Ramsay surrounds the latter everywhere with Silurian.

The "Greenough Map" of the Geological Society being on a larger scale, of course shows more divisions of the beds than Professor Ramsay's map does. Strangely enough, the part of the latter which is most open to

blame is that in which the former most deserves praise. In Kent, Professor Ramsay has coloured too large an area as belonging to the Tertiary beds; which do not form a continuous sheet, but have been almost wholly denuded from Dartford to beyond Gravesend, in which district they occur only as outliers. In the eastern part of the country the fault is the other way, as there is a broad Tertiary tract east of Canterbury. These mistakes must have occurred by some oversight, as fifteen years ago Mr. Prestwich published a map on about the same scale as Professor Ramsay's, wherein the Kentish Tertiary district is laid down very accurately. In the earlier map, too, the London Clay is divided from the Lower London Tertiaries, and we hope that Professor Ramsay will follow so good an example in his next edition, instead of massing them together.

The south-eastern sheet of the Greenough Map deserves special notice. In parts of most maps one can see a marked change in the character of the lines of outcrop, a change owing to the sudden ending of the reduction from the detailed work of the Geological Survey, and its replacement by something of a more sketchy kind; but in this case the careful mapping of the London Basin by Mr. Prestwich shows almost as great detail as could be got from the reduction of Geological Survey work; nevertheless it seems a pity that the latter has not been used further east than has been done.

All the Survey sheets of Kent are not yet finished, and those that are were not in time, most likely, for the Greenough Map. This, however, is not to be regretted, as otherwise the beautiful and accurate work of Mr. Prestwich might never have been published; and we venture to prophesy that the former will confirm the latter, and that the only difference will be in small matters of detail. This sheet, moreover, is the only map on which are shown those outliers of sand on the North Downs of Kent and Surrey, which are classed by some geologists with the Crag.

We must give a passing notice to a chromolithographed map published nearly two years ago, in which the tracts taken up by the great groups of rocks, from the Orkney Isles on the north to the Land's End on the south, and from the Hebrides on the west to the North Foreland on the east, are shown, both clearly and elaborately, in a space of a little more than twenty-eight square inches, an octavo page. It is interesting to compare this map with those given in earlier handbooks. The book to which it belongs contains a short account of the geology of Great Britain, and is, therefore, a good companion to Professor Ramsay's larger map.

Last year Mr. Geikie gave us a new edition of the Geological Map of Scotland, by Sir R. Murchison and himself, first published in 1861. The scale is twenty-five miles to an inch, and eighteen divisions of the rocks are coloured. Here also we are furnished with illustrative sections, the first of which runs from the Isle of Lewis across the mainland to the eastern coast at Brora, showing in succession the Laurentian Gneiss, the Cambrian and Lower Silurian rocks, the Old Red Conglomerate, and the Oolitic Series; the second leads us across Scotland from Skye to the Cheviots, and the third from Ben Lomond to the same range of hills, and as these are nearly at right angles to the general strike of the beds, they illustrate the geological structure of the central and southern parts of the country, including formations from the Laurentian to the Carboniferous, with trap-rocks, both interbedded and intrusive; and the fourth lays before us the detailed structure of Arthur's Seat. Mr. Geikie's book, which shows how the scenery of Scotland is dependent on geological structure, and treats largely on the ways in which nature has carved out the hills, valleys, rock-basins, and parallel roads, is one of the best exponents of those theories of atmospheric denudation which are now forcing themselves into the thoughts

of most of our philosophical geologists, and which we believe will some day be almost universally accepted.

To conclude, those in need of a good Geological Map of England and Wales cannot do better than get that of Professor Ramsay, both for ready reference and as a travelling companion: if a large library-map be wanted, and if expense be no object, the Greenough Map is the right thing. Our Scotch friends we commend to Mr. Geikie, both for map and text.

SUBMARINE TELEGRAPHY.

THE course of lectures, forming one of the Cantor series, recently given by Mr. Fleeming Jenkin before the Society of Arts, contains such an admirable summary of the present state of our knowledge of this all-important subject, that we think a short account of it may be of interest to our readers. The first lecture was devoted to an account of the insulated conductor and its properties. In spite of all the ingenious combinations which have been proposed, there appears to be nothing better than a core similar to that of the Atlantic cable. So far as the insulation is concerned, gutta-percha seems to be absolutely perfect. An experiment which was performed in the room proved a fact which is perhaps little known—viz., that the simple uncovered core of the new Atlantic cable will bear a weight of 5 cwt. without sustaining the slightest injury. The second lecture treated of "shallow and deep sea cables"—terms which have now undergone a considerable change of meaning. A few years ago, a cable laid in 300 or 400 fathoms would have been considered entitled to a place amongst "deep-sea" cables, but now nothing under 1,000 fathoms is included in this class. Having described the manner in which the insulated core is covered with iron-wire and other protective coatings, the lecturer gave some financial statistics of the various submarine lines. The cost of maintenance of shallow-sea cables belonging to the Submarine and Electric Telegraph Companies has been for some years from 8*l.* to 9*l.* per mile; the receipts appear to have been about 85*l.* per knot. The earnings of the Malta-Alexandria line have been as high as 3,000*l.* in one week, or 117*l.* per knot per annum. The Persian Gulf cable is said to be earning at the rate of more than 100,000*l.* per annum, or 85*l.* per knot per annum. The financial results of the deep-sea lines are not so encouraging. About 9,000 miles have been laid and worked a little while, but are no longer working. From 700 to 850 miles are now at work, but much of this is at no great depth. These statistics exclude the 1,000 miles now lying in abeyance at the bottom of the Atlantic. Mr. Jenkin believes "that while in shallow seas, where repairs are possible, cables can hardly be laid too heavy or at too great an expense; in deep seas, where repairs will always be precarious, they can hardly be laid too light or too cheap." In the course of this lecture Mr. Jenkin quoted some experiments made by Mr. Siemens, which proved that steel wire, when spun round with hemp with a definite lay, is stronger than the steel and hemp when tested separately. "The explanation is, that when tested separately, we have the strength of the weakest points, or smallest sections of the wires and strands; but these materials are never uniform, and when combined, as it is most improbable that the two weakest points should coincide, we obtain the sum of their two mean sections or strengths." Iron wire does not show this anomaly, which we venture to state is to be accounted for by some errors in the experiments. If it be true in the case of steel, it ought also to be so in the case of iron, copper, and every other kind of wire covered with hemp. It ought, indeed, to be generally true.

In the third lecture Mr. Jenkin gave an account of the different modes of laying and repairing cables. The theory of submersion was treated very fully and intelligibly; but the nature of the subject, as well as its want of novelty, precludes an abstract. We may, however, state a few of the conclusions. To lay any cable, however light, quite taut, we require nearly the tension due to a weight of the cable hanging plumb from the surface to the bottom; but by increasing the *bulk* of any cable, though we do not diminish its actual *weight*, we may, by laying a little slack, diminish the tension very greatly. With such a cable as the second Atlantic, the tension was thus diminished more than half; to lay it taut would have required

nearly 28 cwt., and 12 cwt. was the amount actually required when about 15 per cent. slack was paid out. The very light ratan and hemp cable invented by Mr. Duncan, weighing only 7.73 cwt. per knot in air, and 1.86 cwt. in water, would, with 12 per cent. slack, be paid out without any strain at all; and if more slack than this were desired, the cable would have to be pushed out of the ship. Nearly the same may be said of a bare gutta-percha-covered wire.

Mr. Jenkin's opinion on the chances of recovering the Atlantic cable, if we are fortunate enough to hook it, is too valuable to be passed over. "If a cable were laid absolutely taut along the bottom of the sea, when hooked by the grapnel it would rise a little way in virtue of its elasticity; if it stretched one per cent., by the time ten miles of it were off the ground the apex would be half a mile from the ground—a result few are prepared to expect; but the strain on the cable where caught would be very great—equal to the weight of about 24 miles of the cable, though the weight on the grapnel rope would be only that of ten miles of cable. The result, therefore, of trying to raise a cable such as the Atlantic laid taut would certainly be to break it; but cables are not laid taut in deep water, and the Atlantic cable is laid with a mean slack of about 12 per cent.; and in the last days we may even count on 14 or 15 per cent. slack. . . . By the time 11.4 miles of the cable are off the ground, the grapnel will be 2,330 fathoms from the bottom—i.e., at the surface of the Atlantic. The strain on the grapnel rope will be the weight of the cable lifted, or about 11.4 miles; the strain on the cable itself at the point of suspension will be much less, being only about three and a-half times the weight of the cable hanging vertically, or say 8 miles of cable. . . . If the cable will bear 11 miles of its own weight, it could, under favourable circumstances, be hauled to the surface by a single grapnel." Several forms of cutting and holding grapnels were exhibited in illustration of the various plans proposed for the recovery of the cable.

The fourth and fifth lectures—perhaps the most interesting of the series—treated of "Electrical Tests." Hitherto it has been the practice, during the laying of a cable, to arrange a succession of tests recurring at definite intervals of time. For instance, during the first twenty minutes of the hour, an insulation test may be used; during the next twenty minutes the resistance of the copper may be measured, showing that it is unbroken. During the last twenty minutes signals may be transmitted and received. This system has the merit of simplicity; but it is sometimes wished to transmit signals at once. This cannot be done, and it is necessary to wait until the time for signalling comes round. A more serious defect than this, however, is, that "a fatal injury to the insulation may altogether escape detection during the periods allotted to continuity tests and speaking; it may pass over into the sea, and when finally discovered may be some miles from the ship." To obviate these disadvantages methods have been devised "by which an insulation test on the ship, and a simultaneous insulation test on shore can be nearly constantly maintained; speaking can be practised at any moment by ship or shore; and even during the transmission of messages the insulation test need not be wholly suspended." Two such methods were described by Mr. Jenkin. The first was that of Mr. Willoughby Smith, and the second and more complicated one that of Professor Thompson, published for the first time in these lectures. They are too complex to be described here, and we must refer the reader to the *Journal of the Society of Arts* (Nos. 689-693), in which he will find a handy abstract of these valuable lectures. They are of an eminently practical character, and they are so very useful that we hope to see them published in a separate form. This is, we believe, Mr. Jenkin's first appearance as a lecturer. We may congratulate him on his clear and simple manner of rendering a somewhat difficult subject intelligible to a general audience.

PHYSICAL ASPECTS OF PALESTINE.

[No. IV.]

NOTE ON THE FORMATION OF THE BASIN OF THE DEAD SEA, AND ON THE CHANGES WHICH HAVE TAKEN PLACE IN THE LEVEL OF THE LAKE. BY M. LOUIS LARTET, &C., &C.

(Continued.)

THE position of these beds on both sides of the Jordan Valley, and its striking rectilinear character, would seem to favour the idea of

the existence of a vast line of fracture through the middle of the country; but, in fact, instead of corresponding, the western and eastern sides of the valley are not on the same geological level—nay more, there is every reason to believe that if the beds on the eastern side could be seen below the waters of the lake, it would be found that at that depth the difference in throw would be still greater.* I have already said that the highlands which form the mountains of Judah dip towards the Dead Sea. Lynch's soundings† show that on the west side of the lake the slope of the shore is moderate, and in correspondence with the dip of the strata. On the eastern side, however, the shore is almost vertical, and a transverse section through the central part of the lake presents nearly the form of a right-angled triangle. The cretaceous beds below the water form nearly the hypotenuse of the triangle, until they meet the older beds on the eastern side, which are almost vertical, and form the short side of the right angle. This state of things is analogous to that which is observed in the case of fissures, and Hichcock's hypothesis is, therefore, the one which most satisfactorily accounts for the facts.

The axis of the Dead Sea is not, it is true, an exact continuation of that of the Valley of the Jordan, but, nevertheless, the form of the bed of the lake supports Hichcock's theory. If we lay down the various sections of the lake from Lynch's soundings, we shall arrive at last at an extremely elongated ellipse, comprised between the Wadys Zerka-Main and Mojeb, and representing the greatest depth of the basin. Now it is very remarkable that the main axis of this ellipse is an exact prolongation of that of the Valley of the Jordan. In the same way, we find that the direction of the sandstone cliffs in the southern part of the basin is not quite coincident with that of the Wady Arabah, which bends slightly towards the west. South-east of the lake from Mount Hor to the Ghores-Safieh the line of sandstones is interrupted by bands of felspathic porphyries, following the same general direction from North to South. A large number of the earthquakes which have so long affected Syria follow the same line, as do also the hot and mineral springs and the sources of bitumen.

It follows, then, that if these conditions cannot be actually identified with those of ordinary geological faults, they are enough to imply that at some very distant epoch a fracture took place in the soil of this district in the general direction of North and South. Further, it would appear that before the deposit of the cretaceous rocks the fracture had begun to show itself in the southern portion of the basin. The porphyries (which, as we have just seen, are older than the cretaceous beds) no doubt made their appearance at this epoch—at any rate, this may be inferred from their disposition and direction. At a later date the movements which caused the rise of the ocean bed that corresponds to Syria and Arabia Petrea, may have extended the fracture towards the north, and at the same time formed the mountain chains which accompany it.

Owing to the unequal strength of the different portions of the earth's crust, the general movement may have produced great inequalities of the level in the cretaceous beds, corresponding to the two sides of the line of fracture. The eastern side of the highlands of Judah must have undergone a considerable downward movement all along the line of dislocation, thus originating the depressed trench which separates Palestine proper from the highlands on the other side of the Jordan. This theory is justified by the sudden dip of the eastern side of the highlands of Judah, by the form of the bottom of the Dead Sea, and by the want of correspondence of the beds on the two sides of the depression, and appears to me to explain the facts better than any other.

IX.—The Formation of the Lake, and the Successive Variations in its Level.

Having thus endeavoured to discover the manner in which the basin of the Dead Sea was formed, it remains to examine the extent of the depression in the level of the water of the lake in reference to the ocean. This question is, as Dr. Anderson has justly remarked, entirely independent of that of the depression of the bottom of the basin. From what has gone before, it appears that the cretaceous and eocene rocks, which did not rise from the ocean until after the commencement of the Tertiary period, formed the

limit of the basin. They are the last marine beds to be found there; and, since their appearance, the Basin has been subjected to the influence of atmospheric agents alone. The present wadys have been no doubt entirely the work of the rains, which conveyed through them to the bottom of the depression the materials washed from the neighbouring rocks, an action which they have continued until they have fixed on the country the principal features of its present physiognomy. It is in the immediate neighbourhood of the lake that the beds of the eastern slope of the mountains of Judah dip most suddenly. It was at this spot, therefore, that the first accumulation of water must have taken place, and thus a lake was formed which, at the beginning, was probably fresh, but which must quickly have become salt, owing to the neighbourhood of the saliferous deposits mentioned above.

This Tertiary Lake was the sole receptacle of the waters of the basin; its size must have been regulated by the evaporation; and even at that remote period, since its waters were continually being thrown off, and leaving in the basin their constituent salts, the lake may have acquired a degree of saltiness quite exceptional.*

Admitting that the lake was thus formed, and that its extent is dependent solely on the equilibrium between the evaporation and the natural supply, it is a legitimate subject for enquiry whether its size has ever been greater than at present; whether it formerly occupied a much larger area; or whether, on the contrary, it did not exist at first in a rudimentary form, of which traces are preserved in the salt mountain of Jebel Usdum.†

I need not insist on the importance of this question, a solution of which would reveal the nature of the ancient climate of the district, as well as the changes it has undergone since that time. If I have proved my position, that the Dead Sea was always a closed basin cut off from the ocean, it is clear that the level of its water must always have been an index to the proportion between the atmospheric supply and the evaporation, and must have varied as one or the other predominated, just as is the case at the present day. The level of the lake must therefore have varied with the condition of the atmosphere, and must have left traces of those variations, traces which are invaluable, if we wish to investigate the state of the climate of the basin at times very remote from our own.

Such isolated lakes as the Dead Sea may, in fact, be considered as instruments provided by nature for the use of those who inquire into the secrets of the past, with the view of accounting for ancient phenomena beyond the reach of actual observation. These reservoirs may be looked on as vast rain-gauges, constructed to register the relation between the quantity of water which has fallen and the quantity which has been evaporated. It is true that they do not register *minima*, but they record indelibly the *maxima* of those remote periods. They record them in the successive deposits left by the lake as its waters rise; and they have this advantage over our meteorological instruments, that they give us not only the level, but the constitution of the water at the time of its attaining each successive elevation.

(To be continued.)

SCIENTIFIC NOTES.

It is obviously a matter of great importance to lessen the pain of a surgical operation, and we have good reason to be grateful to the man who devises a method by which this may be done. In many cases, as where the patient is suffering from disease of the heart, the use of chloroform is highly dangerous. It has often

* Dr. Anderson appears to think that the amount of magnesia contained in the dolomites and basalts may have had a powerful effect on the concentration of the waters of the lake. I will not dispute such a possibility with regard to the dolomites; but as to the basalts, I will only remark, that before its eruption the water of the lake must, to judge by its ancient deposit, have already contained much magnesia. It is the gypsum and the saliferous beds which must have exercised the most influence on the saltiness of the lake, as well as the hot mineral springs, of which a great number are now only represented by their ancient incrustation. There is every reason to believe that these springs were formerly more numerous and more copious than at present. That at Emmaus (? near Tiberias), if we may trust the analysis of Dr. Anderson, still contains bromine, and it is probable that in this manner we may account for the enormous proportion of that base that is contained in the waters of the lake.

† Before dismissing the latter supposition, I beg to refer to what M. D'Archiac has said on the subject, merely adding that the salt of Jebel Usdum is deposited in beds which occur at the upper limit of the cretaceous rocks, those cretaceous rocks having been deposited at the bottom of the ocean long before Palestine emerged therefrom.

* If this assumption is tenable, the real throw of the beds at the bottom of the lake must exceed the apparent throw of the cliffs by at least 300 metres.

† These soundings were carefully verified by M. Vignes, who has satisfied himself of their accuracy.

happened, moreover, that death has ensued when the operation to be performed was of the most trifling nature. Under these circumstances any simple and effectual method of producing local anaesthesia must obviously be of vast importance. Some time back, Dr. Richardson proposed to produce insensibility in any part of the body in which it might be desired to operate by projecting upon the part a finely divided spray of pure and highly rectified ether of 0.783 specific gravity. A recent number of the *Lancet* contains a record of several successful operations in which Dr. Richardson's new method has been employed. The number of operations, over 100 we believe, which have now been performed under the influence of this "narcotic spray," are almost sufficient to take the method at once from the domain of theory and to place it in that of practice. It is exceedingly simple, and should it, on a further trial, be found to possess no serious drawbacks, it will prove an inestimable boon to mankind.

SIR HENRY JAMES has called attention to an important error in the estimated rainfall caused by the evaporation from the interior of the gauge. He has noticed that the rainfall, as measured by the gauge at the Ordnance Survey Office, Southampton, is greater than that registered by several observers in the immediate neighbourhood. A gauge of "the ordinary cubical form, with a moveable funnel-shaped partition, allowing the entire inside of the vessel to be wetted by the rain," at the Ordnance Survey Office gave, for 1865, 33.461 in., whilst the standard gauge placed beside it registered 42.709 in. The difference of 9.24 in., or about 22 per cent. of the whole, escaped measurement in consequence of the evaporation. "The standard gauge is a circular funnel-shaped one of 5½ in. diameter, from which the water is received into a bottle, and the amount ascertained by weighing." The cubical gauge is 10 in. square.

THE French Consul at Ancona, M. de Castellane, has recently sent to the Jardin d'Acclimatation, in the Bois de Boulogne, three fragments of the rock from the sea-shore at that place. These blocks are inhabited by a considerable number of pholades, which form a very choice article of food in that part of Italy. They have been placed in the aquarium at the Garden, and one of the blocks has been broken across so as to expose some of the shells to view, and permit the operations of these curious animals to be watched.

THE *Revue de Saint-Pons* announces that M. Paul Gervais, the successor to Gratiolet in the Chair of Zoology and Comparative Anatomy at the Faculty of Sciences of Paris, is about to continue his excavations at the Pontil Cave, which contains a rich deposit of animal remains and objects of human industry of a very early period.

DR. HUMPHRY has communicated to the *Lancet* an account of the case of the late Dr. Whewell, which is of some value in a physiological point of view, apart from the interest which attaches to it from the high reputation of the patient. As will be recollected, Dr. Whewell was taken up immediately after the fall from his horse, placed in his carriage, and driven home. He never quite lost his consciousness, and, while being carried into the house, the short, gruff expression "dead man" escaped him. There was no bleeding from either ear, or from the nose or mouth; no defect in the hearing, no difficulty or pain in breathing, or appearance of any other injury. Some hours afterwards an indication of motor paralysis of the left hand, and part of the left side of the face, was observed, and the patient was unable to put a piece of bread into his mouth. After two or three futile efforts, he said, "I can't find my mouth." The skull was thick, and was entirely uninjured, but the post-mortem showed that the vessels of the brain, being in a diseased condition, had given way under a shock that was insufficient to damage the skull. "When the vessels of the brain are sound they rarely give way, and there is seldom a lesion of the brain-substance unless the violence has been sufficient to break the skull. . . . This increasing disproportion between the weight and strength of the skull is no uncommon anomaly in advancing years." In Dr. Whewell's case the shrinking of the brain did not seem to be accompanied by any impairment of intellectual power, except a disposition to somnolency. The paralysis of the hand and mouth showed that the jar "had made a rent, and from that a man rarely recovers. It is remarkable that the paralysis was so slight and so partial, being confined to the side of the mouth and to the hand, although the lesion of

the brain was so extensive and in so important a region." The fact of consciousness being retained is to be explained by the space between the skull and brain consequent on the shrinking of the latter being filled with serous fluid, which would readily undergo absorption and thus prevent any injurious pressure on the brain by the effused blood.

WE have received a prospectus of the Aeronautical Society of Great Britain, which invites support and subscribers. Amongst other things, it is proposed to establish a museum for the collection of all models and inventions of man in his endeavours to elucidate the practicability of aerial navigation, to keep balloons always inflated, ready for ascension, and, should the Society become sufficiently large, to make an ascent every day. Subscriptions and donations to be sent to the treasurer, Mr. James Glaisher, F.R.S., Dartmouth Place, Blackheath.

DR. FERDINAND WOLF, Curator of the Imperial Library, and Secretary to the Academy of Sciences at Vienna, died in that city on the 19th ult. On the 24th, died at Osnabrück, the Gymnasialdirector, R. Abeken, the friend of Schiller, to whose children he was tutor; and on the 25th, at Berlin, the Regierungsrath, M. Wichura, who accompanied the Prussian scientific expedition to Eastern Asia as botanist.

THE annual meeting of the Institution of Naval Architects was opened in the rooms of the Society of Arts on Thursday last, continued yesterday, and will be brought to a close to-day.

THE Abbé Brasseur de Bourbourg has just returned to Mexico from his sixth journey into the interior, which was undertaken under the patronage of the Emperor Maximilian, and an account of which the Abbé is about to add to his other valuable publications on Mexico.

IF we unveil the "Mystery" which Colonel Stodare has been exhibiting at the Egyptian Hall for some time, we trust that we shall not incur the displeasure either of the inventor of "The Sphinx" or of those who intend paying it a visit. The Sphinx, be it known, is the object of a patent, as indeed everything is now-a-days. The specification, which has just been made public, gives us the required information. In Colonel Stodare's exhibition, as almost everyone knows, a head appears on what seems to be an ordinary three-legged table, which stands in the centre of the stage. To all appearances the head is an independent member, which makes a speech, and answers questions, quite as well as many an "independent member" in "another place." The secret lies in the table, which, instead of being open underneath, is occupied by two mirrors extending from the two back legs and meeting at the front leg. Now if a spectator is ignorant of the existence of a mirror, he has no means of distinguishing reflected from real objects, unless they appear in unnatural positions. It is a law in optics that the reflected image of an object appears as far behind the mirror as the object reflected is in front of it. It is obvious that by a proper arrangement of duplicate pictures of that part of the scene hidden by the table a reflection of those duplicates may be caused to appear in the mirrors underneath the table, and thus lead the spectator to imagine that he sees beyond the table, whereas all the time he is looking at a reflected image of the back scene. The triangular space enclosed by the glasses serves to contain the legs and body of the Sphinx, whose head appears on the top of the table. The principle, it will be seen, is somewhat similar to that of Eidos Aeides, a clever illusion shown at Her Majesty's Theatre last year (READER v., 458), which consisted in rendering an object alternately visible and invisible by placing a sheet of plain glass in front of it, and disposing a facsimile of the scene at the back at a suitable angle at the wing. When the duplicate scene was strongly illuminated, the stage-lights being lowered, it was reflected in the glass, which acted for a time as a mirror, and the object disappeared. When the lights on the false scene were turned down, the stage lights being allowed to predominate, the object became visible again. We may add that Colonel Stodare's patent was not granted, the application having been successfully opposed by the proprietors of "Proteus," another of the ingenious optical delusions in fashion just now.

MESSRS. TRUBNER & Co. have kindly allowed us to inspect a manuscript work by Mr. George Catlin, to be illustrated with twenty-three facsimiles, in coloured photo-lithography, of the annual religious ceremony practised by the Mandans, a tribe of North American Indians, which they are about to publish. The tribe, one of the

most highly-developed of the race of Red men, is almost extinct, and the work will, therefore, possess great interest to the anthropological student, as it will enable him, before that extinction takes place, to verify for himself the accuracy of one of the most marvellous of wild Indian religious rites, which seems the remains of that Baal worship that at one time prevailed throughout Asia and the East, but, curiously enough, with which this cultus also celebrates the tradition of a universal flood. The ceremony is called O-kee-pa, and in Trübner's *American and Oriental Literary Record* of August last is thus referred to: "The ceremony has its origin in the Mandan tradition of the flood, and in this ceremony they celebrate the subsidence of the waters, which in their language they term 'Me-ne-roka-ha-sha,' that is, the sinking down or settling of the waters. Mr. Catlin refers to the 'Ark or Big Canoe,' which is supposed to be preserved in the medicine lodge of the village, and is considered a sacred object; he states that in the neighbourhood of this, as well as in that of every Indian tribe he has visited, some high mountain is pointed out as that on which the 'Big Canoe' landed. Though the Mandans have no other method of computing time than by 'moons' and 'snows,' when asked by Mr. Catlin when the ceremony would commence, the reply was: 'As soon as the willow leaves are full-grown under the bank of the river.' 'What,' he asked, 'has the willow to do with the matter?' 'The twig which the medicine bird brought home was a willow bough, and had full-grown leaves on it,' and on pursuing his investigation as to the precise character of the bird of which his informant spoke, a couple of turtle doves were pointed out to him as the great Spirit mystery or medicine birds." One part of the ceremonial is the "Bull Dance," which is typical of the increase of the human race no less than of the propagation of the wild cattle of the prairies, and in some points resembles the abominations of the caves of Ellora. This is particularly so in a ceremonial which subjects the young men to an ordeal of privation and torture calculated to harden their muscles, and render them capable of great endurance; but which, as in those abominations, gives a licence which seems to betoken a determination on the part of the actors to prevent the extinction of the Indian race. But there is mention made by Mr. Catlin of a tradition more marvellous still, if not engrafted into the belief of the tribe by its contact with white people. It is a pure virgin giving birth to a son, a grand search for the child, a powerful intervention by the child, through which the nations were saved from starvation, and the destruction of the child by the influence of the Evil Spirit.

MR. J. C. STEVENS, of King Street, Covent Garden, invites anthropologists to inspect a petrified native from the Antipodes, the only specimen known to the scientific world, and believed to be of very great antiquity. This relic of a bygone race is to be sold by auction on Tuesday next.

SCIENTIFIC CORRESPONDENCE.

THE THEORY OF THE SKELETON AND OF THE SKULL.

Sydney Sussex College, Cambridge.

MY paper, read before the Cambridge Philosophical Society, and reported in THE READER of the 10th March, was the first part of an investigation into the theory of the organism, and treated chiefly of the theory of the development of bone, of the theory of the vertebrae, and of the theory of the skull. Until the laws of the origin and growths of separate and simple bones are known, it is premature to consider the theory of compound bones like the vertebrae. And until the laws of the development of the parts of vertebrae are determined, it is not possible to compare vertebrae and the skull with accuracy.

From considerations in mechanics, in pathology, and in comparative anatomy, I concluded that a centre of growth appears, develops, and ossifies, under the influence of pressure and tension, and that this bone may, and does, under the influence of pressure and tension, develop upon itself, wherever the forces act with sufficient power, other bones which are called epiphyses, which epiphyses may and do, under the influence of the requisite pressure and tension, assume the characters of original centres of growth, and also develop upon themselves other epiphyses in any direction. In discussing these principles, reasons were given why the bone usually called tarsometatarsus in birds might only be the tarsus.

A vertebra was considered to be a centre of growth which usually develops three pairs of epiphyses, any or all of which may be wanting. First, there is a pair of epiphyses at the anterior

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and posterior ends of the centrum, being the epiphyses usually so called. Secondly, there is on the dorsal part of the centrum a pair of neural epiphyses which enclose the neural canal; and lastly, there is on the ventral part of the centrum a pair of hæmal epiphyses which help to enclose the viscera.

I find the head divided into three parts: (1) a brain cavity, (2) a breathing cavity, and (3) a feeding cavity. The brain cavity I regard as a modified vertebra, in which the parietal segment develops the occipital segment as its posterior epiphyses and the frontal segment for its anterior epiphyses. The lower jaw, helping to form the prehensile end of the digestive canal, I regard as the rib of the brain-cavity vertebra. Then, as the brain cavity is seen to be the anterior termination of the neural canal, so the breathing cavity of the skull is seen to be the anterior termination of the breathing canal. And just as the brain region is found to be a modified vertebra, so the breathing circle of bones is interpreted to be the modified end of the trachea.

Thus I concluded that the skull is developed and modified from the plan of a segment of the body, and not from the neural skeleton only.

HARRY SEELEY.

THE GLACIAL SUBMERGENCE.

YOUR correspondent "M." states that owing to the fact that the mass of the icecap of the glacial epoch must have been small, compared with that of the earth, it could not possibly have exercised any sensible influence on the arrangement of the molten materials in the earth's interior.

I fear that your correspondent's mechanics are again at fault. For it is a well known principle in mechanics that a spherical shell of uniform thickness and mass all round (which the earth's crust is assumed to be) can exercise no influence whatever on the position of any body situated in its interior. An icecap placed on the earth's surface would therefore, according to theory, affect the interior mass precisely the same as it would do did the crust not exist, no matter what the thickness of the crust might happen to be. Your correspondent must therefore compare the icecap, not with the mass of the entire globe, but only with that of the molten materials in the interior. J.

ON A NEW METHOD OF MOUNTING SILVERED-GLASS SPECULA AND DIAGONAL MIRRORS IN REFLECTING TELESCOPES.

OWING to their cheapness and portability, telescopes constructed with Foucault's silvered-glass mirrors are receiving a constantly increasing share of attention. The focal length of these mirrors need not exceed eight times their diameter, while for each inch in diameter—when of the best figure—they will bear a magnifying power of 100, on close stars in finest states of air.

The principal difficulty hitherto encountered in fitting up these mirrors, when they are of large size, has been that of mounting them in such a manner as to avoid flexure. Various contrivances have been employed for this purpose. Among others, they have been supported on air cushions, on layers of felt, and on a number of triangles, each supported on a centre. All of these plans appear to me to possess the common fault—that a blow, or shock of any kind, or even a change in the position of the telescope, frequently throws the speculum out of adjustment. The method I have devised for overcoming this difficulty I shall now proceed to describe.

First, however, I wish to state I have the mirrors made of glass much thicker than is generally employed for the purpose. For a speculum 6½ inches in diameter, I use glass of a thickness of one inch; for a speculum 10 inches in diameter, glass 1½ inches in thickness. The extra cost of the glass—as it is only ordinary plate-glass—is merely nominal, and the difficulty of working the mirrors not at all increased.

After the disc which is to form the mirror is shaped—but before the parabolic figure has been given to it—I work the back carefully to a very perfect plane, by the same method I employ for working the plane surfaces of prisms. When this has been done, the mirror has the parabolic figure given to it.

A cast-iron cell is now prepared, whose internal diameter is rather larger than the mirror. The bottom of this cell, when intended for a 10-inch mirror, should be at least three-quarters of an inch thick. The inside of this cell, on which the mirror will have to rest, I now also bring carefully to a plane surface in the following manner: I first turn it in a slide rest in a

lathe in the usual way. Then I prepare a Whitworth's plane surface of a circular form, one-eighth of an inch less in diameter than the mirror to be mounted. The bottom of the cell is made flat by scraping, being tested repeatedly during the process with the circular Whitworth's surface. It greatly facilitates this operation, if a groove be turned in the bottom of the cell. The centre of the bearing surface of the cell to the extent of one-third may be advantageously turned away. This materially lessens the risk of the mirror being deflected, either by the presence of any particles of foreign matter, or by the cell altering its form owing to changes of temperature. For this suggestion I am indebted to the kindness of Colonel Strange.

Before the mirror is placed in its cell, the bearing surface is slightly smeared with the best oil, to prevent the oxidation of the iron. Lastly, the mirror is secured in its position by a ring. In adjusting the mirror, it is necessary to avoid placing any strain upon the cell, as a very small strain is sufficient to deflect the bottom of the cell, and this deflection extends to the mirror.

This is avoided by placing the cell in another cell, and adjusting it in position by means of hollow screws. These screws allow of the cell being raised and lowered without throwing any strain upon the cell. The silvered surface of the mirror is protected by a tightly-fitting cover, which is adapted to the edge of the cell.

Some time since Mr. With, of Hereford, so well-known for the success with which he has paid attention to the construction of silvered-glass specula, suggested to me that their performance would probably be improved if some other method were adopted of mounting the diagonal reflector or prism.

As at present mounted on an arm, they are subject to vibration, and the substance of this arm produces coarse rays on bright stars.

I have endeavoured to obviate these inconveniences by the following plan of mounting:—

The diagonal mirror, or prism, is attached by three pillars to a round plate, whose diameter is the minor axis of the ellipse. This round plate is supported by three strips of watch-spring placed edgewise towards the speculum. The adjustment is made by means of hollow screws, of the same kind as those I have referred to in the commencement of this paper as applied to the speculum. The most difficult tests for silvered-glass specula are very bright stars of large magnitude. Their performance on this class of objects is considerably improved by using a good Barlow lens of four or five inches virtual focus. At the same time, as is well known, the employment of this lens forms a most convenient contrivance for increasing the power of the various eye-pieces.

For low powers, achromatic eye-pieces made by combining two achromatic combinations, each consisting of a plano-concave flint and double convex crown cemented together, arranged so that the convex sides of the crown lenses almost touch each other. When used in this manner, if the parabolizing operation on the speculum has been conducted with sufficient care and skill, the performance of an 8½-inch speculum will bear comparison with a 7-inch refractor in point of light, and exceed it in separating power, while the expense need not be more than one-fifth of the cost of such an object glass.

In conjunction with Mr. Slack, I have contrived a simple and very substantial form of equatorial mounting, entirely in cast-iron, for these telescopes. At the same time, I am greatly indebted to Mr. Slack for the valuable assistance he has rendered me in carefully testing the results of the various modifications I tried in the course of my experiments, before I finally adopted the plans I have just described.

With a plane glass mirror as a diagonal reflector, unsilvered, so as to allow the heat rays to pass freely, these telescopes answer admirably for observations on sun spots.

It is well known that there is a considerable number of interesting observations which can only be made with large apertures, and that consideration of expense alone has hitherto prevented their being used.

I shall be highly gratified if the attention that I have given to the mounting of these mirrors and telescopes should lead to their more general adoption.

JOHN BROWNING, F.R.A.S.

PROCEEDINGS OF FOREIGN ACADEMIES.

BRUSSELS.

ROYAL ACADEMY OF SCIENCES.—March 3.—Professor Rodigas communicated his observations on the periodic phenomena of the vegetable

kingdom, in the neighbourhood of Gendbrugge, for the year 1865. M. Vincent, chief engineer and director of the electric telegraph department, informed the Academy that continuous currents were observed on the 22nd of February, from 4.45 to 5.10, in the majority of wires in connexion with the principal office at Brussels.

The following questions were selected for the Concours of 1866: 1. "Write an Account of the Colliery System of Belgium." 2. "Determine the relative superiority of Geometrical and Analytical Methods." 3. "State the probable theory of Shooting Stars, as deduced from observed facts." 4. "Establish by detailed observations the mode of development in *Petromyzon marinus*, *Petromyzon fluviatilis*, *Amphioxus lanceolatus*, or in the Eel." 5. "Describe the Fossil Fauna and Flora of the Belgian Coal-measures, stating carefully the localities and beds in which each Species has been found, and deducing the difference of the groups of Strata." The prizes for each of these questions is a gold medal of the value of 600 francs. To the fifth, a sum of 2,000 francs has been added by the Minister of the Interior. The memoirs may be written in Flemish, French, or Latin, and must be transmitted to the Perpetual Secretary, M. Ad. Quetelet, before the 20th September, 1866.

The papers received were: Briart and Cornet, "On the Cretaceous Formations of Hainaut." Part 1—Mineralogical and Stratigraphical description of the Lower Group (*Système Rachenien* of Dumont), followed by a description of the vegetable fossils of these strata by M. Coemans. Perrey, "On the Earthquakes of 1864, with supplements for the previous years from 1843 to 1863." Swarts, "On the Brominated Derivatives of Camphor." Zenger, "On a New Electrical Induction Machine."

M. Stas presented reports on the following papers: Glaser, "On the Transformation of Aniline into Azobenzene." Ladenburg, "On the Synthesis of Anisic Acid, and its Homologues." Henry, "Contributions towards the History of Chromium." The two first papers were ordered to be printed in the *Bulletin*, but the third was referred back to the author, who was recommended to submit his conclusions once more to the test of experiment.

MM. d'Omalus and Van Beneden presented their report upon a paper by M. Dupont, "On the Quaternary Deposits of the Valleys of the Meuse and Lesse in the Province of Namur." The author of this memoir attempts to show the connexion between the deposits found in the caverns and those of the valleys of the Meuse and Lesse. M. Van Beneden says, "M. Dupont has so well established the relation between the quaternary cave-deposits, which have frequently been so much disturbed, and the tranquil and comparatively regular deposits of the valleys and plateaux, that I should regret if future researches were to have the effect of demolishing all this beautiful scaffolding. Everything considered, however, M. Dupont has neglected no means of rendering his work as complete as possible, and although there is only a single elephant's tusk to represent the first fauna, and the tooth of a bear to represent the second, we can say that he has done all in his power to find more." The paper was ordered to be printed in the *Bulletin*. A paper, by M. Van Beneden, "On the Polyyps of the Belgian coasts," illustrated by twenty-one plates, was ordered to be printed in the *Mémoires*, in conformity with the recommendations of the reporters.

M. Van Beneden read a lengthy note "On Hematoid Worms," which was ordered to be printed in the *Bulletin*.

M. A. Quetelet made some remarks upon the variations in the magnetic declination on the 2nd of February, the day in which very decided currents had been observed in the lines of telegraph. They are recorded by M. Vincent as follows: "Continuous currents were observed this morning from 4.45 to 5.10 on the majority of the lines of telegraph in connexion with the principal office at Brussels. The intensity of these spontaneous currents was greatest on the Brussels, Ostend, and Lille line, and less on those extending in a southerly and westerly direction. Towards the north, the phenomenon was only observed for five minutes. The officials at Paris report the same facts. As they coincide with a magnetic perturbation, which you have doubtless recorded, it may be interesting to inform you of the observations of the Government employes."

REPORTS OF LEARNED SOCIETIES.

ROYAL.—March 15.—“On a Possible Geological Cause of Changes in the Position of the Axis of the Earth's Crust,” by Mr. John Evans, F.R.S.

The author observed that the fact of great changes of climate having taken place, at all events in the northern hemisphere of the globe, is well established; and that corresponding changes have not been noticed to the same extent in the southern hemisphere may be due rather to a more limited amount of geological observation than to an absence of the phenomena themselves, especially as the evidence of the extreme refrigeration of this portion of the earth at the glacial period is constantly receiving fresh corroboration.

The possibility of any material change in the axis of rotation of the earth has been so distinctly denied by Laplace (*Méc. Cél.*, Vol. v. p. 14) and all succeeding astronomers, that any theory involving such a change has been rejected by nearly all geologists as untenable.

Sir Henry James, however, writing to the *Athenæum* in 1860 (Aug. 25, &c.), stated that he had long since arrived at the conclusion that there was no possible explanation of some of the geological phenomena testifying to the climate at certain spots having greatly varied at different periods, without the supposition of constant changes in the position of the axis of the earth's rotation. He then, assuming as an admitted fact that the earth is at present a fluid mass with a hardened crust, shows that slaty cleavage, dislocations, and undulations in the various strata are results which might be expected from the crust of earth having to assume a new external form, if caused to revolve on a new axis, and advances the theory that the elevation of mountain-chains of larger extent than at present known produced these changes in the position of the poles.

The subject was discussed in further letters from Sir Henry James, the Astronomer Royal, Professors Beete Jukes and Hennessy, and others, but throughout the discussion the principal question at issue seems to have been whether any elevation of a mountain-mass could sensibly affect the position of the axis of rotation of the globe as a whole, and the general verdict was in the negative. At an earlier period, 1848, the late Sir John Lubbock, in a short paper in the *Quarterly Journal of the Geological Society* (Vol. v. p. 5), pointed out what would have been the effect had the axis of rotation of the earth not originally corresponded with the axis of figure, and also mentioned some considerations which appear to have been absent from Laplace's calculations. Sir John Lubbock, however, appears to have regarded the earth as consisting of a solid nucleus with a body of water distributed over a portion of its surface; and there can be but little doubt that, on this assumption of the solidity of the earth, the usually received doctrines as to the general persistence of the direction of the poles are almost unassailable.

Directly, however, that we argue from the contrary assumption that the solid portion of the globe consists of a comparatively thin, but to some extent rigid crust with a fluid nucleus of incandescent mineral matter within, and that this crust, from various causes, is liable to changes disturbing its equilibrium, it becomes apparent that such disturbances may lead, if not to a change in the position of the general axis of the globe, yet at all events to a change in the relative positions of the solid crust and the fluid nucleus, and in consequence to a change in the axis of rotation, so far as the former is concerned.

Though we are at present unacquainted with the exact law of the increment of heat at different depths, and though, no doubt, under enormous pressure the temperature of the fusing point of all substances may be considerably raised, yet the fact of the heat increasing with the depth from the surface seems so well established that it is highly probable that at a certain depth such a degree of heat must be attained as would reduce all mineral matter with which we are acquainted into a state of fusion. When once this point was attained, it seems probable that there would be no very great variation in the temperature of the internal mass; but whether the whole is in one uniform state of fluidity, or whether there is a mass of solid matter in the centre of the fluid nucleus, are questions which do not affect the hypothesis about to be considered.

Those who are inclined to regard the earth as a solid or nearly solid mass throughout, consider

that many volcanic phenomena may be accounted for on the chemical theory, which has received the support, among others, of Sir Charles Lyell. But apart from the consideration that such chemical action must of necessity be limited in its duration, the existence of local seas of fluid matter resulting from the heat generated by intense chemical action, would hardly account for the increase of heat at great depths in places remote from volcanic centres, and the rapid transmission of shocks of earthquakes and the enormous amount of upheaval and subsidence, as evidenced by the thickness of the sedimentary strata, seem inconsistent either with the general solidity of the globe or any very great thickness of its crust.

The supposition that the gradual oscillations of the surface of the earth, of which we have evidence all over the world as having taken place ever since the formation of the earliest known strata up to the present time, are due to the alternate inflation by gas and the subsequent depletion of certain vast bladderly cavities in the crust of the earth, can hardly be generally accepted.

The author's object was to point out what, assuming the theory to be true, would be some of the effects resulting from such a condition of things, more especially as affecting climatal changes. These he illustrated by aid of a diagram, and also by an ingenious model, prepared after a suggestion of Mr. F. Galton, F.R.S. He then showed that an irregular accumulation of ice at one or both of the poles, such as supposed by M. Adhémar, would act in the same manner as an elevation of the land; and even assuming that the whole land had disappeared from above the surface of the sea, yet if by marine currents the shallower parts of the universal ocean were deepened and the deeper parts filled up, there would, owing to the different specific gravity of the transported soil and the displaced water, be a disturbance in the equilibrium of the crust, and a consequent change in the position of its axis of rotation; and that if all this be true of a sphere, as assumed, it would also, subject to certain modifications, be true of a spheroid so slightly oblate as our globe.

The main difference in the two cases is, that in a sphere the crust may assume any position upon the nucleus without any alteration in its structure, while in the case of the movement of a spheroidal crust over a similar spheroidal nucleus, every portion of its internal structure must be more or less disturbed as the curvature at each point will be slightly altered. The extent of the resistance to an alteration of position arising from this cause will depend upon the oblateness of the spheroid and the thickness and rigidity of the crust; while the thicker the latter is, the less also will be the proportionate effect of such elevations, subsidences, and denudations as those with which we are acquainted. The question of friction upon the nucleus is also one that would have to be considered, as the internal matter though fluid might be viscous.

If therefore, he said, our globe consists of a solid crust of no great thickness resting on a fluid nucleus, either with or without a solid central core, and if this crust, as there is abundant evidence to prove, is liable to great disturbances in its equilibrium, then it of necessity follows that changes take place in the position of the crust with regard to the nucleus, and an alteration in the position of the axis of rotation, so far as the surface of the earth is concerned, ensues.

Without undervaluing other causes which may lead to climatal changes, he thought that possibly we may have here a *vera causa* such as would account for extreme variations from a tropical to an arctic temperature at the same spot, in a simpler and more satisfactory manner than any other hypothesis. The former existence of cold in what are now warm latitudes might, and probably did in part, arise from other causes than a change in the axis of rotation, but no other hypothesis can well account for the existence of traces of an almost tropical vegetation within the Arctic circle. Of the former existence of such a vegetation, the evidence, though strong, is not conclusive. But if the fossil plants of Melville Island, in lat. 75° N. (Lyell, “*Principles of Geology*,” 1853, p. 88), which appear to agree generically with those from the English coal-measures, really grew upon the spot where they were now discovered, they seem to afford conclusive evidence of a change in the position of the pole since the period at which they grew, as such vegetation must be considered impossible in so high a latitude. The corals and orthoceratites from Griffiths Island and Corn-

wallis Island, and the liassic ammonites from Point Wilkie, Prince Patrick's Island, tell the same story of the former existence of something like a sub-tropical climate at places at present well within the Arctic circle. He thought that if the possibility of a change in the position of the axis of rotation of the crust of the earth were once admitted, it would smooth over many difficulties. That some such change is indeed taking place at the present moment may be inferred from the observations of the Astronomer Royal, who, in his report to the Board of Visitors for 1861, says—though “only for the sake of embodying his description of the observed facts,” as he refers the discrepancies noticed to “some peculiarity of the instrument”—“the transit circle and collimators still present those appearances of agreement between themselves and of change with respect to the stars which seem explicable only on one of two suppositions—that the ground itself shifts with respect to the general earth—or that the axis of rotation changes its position.”

CHEMICAL.—March 15.—Dr. W. A. Miller, President, in the chair.

Mr. Charles N. Ellis was admitted a Fellow of the Society, and Messrs. Samuel Crawley and C. Patmore Phillips were elected.

Dr. Hugo Müller read a paper “On Hydrocyan Rosaniline,” a new, colourless base, which he has succeeded in forming by the action of cyanide of potassium upon magenta crystals (acetate of rosaniline). Its composition is somewhat allied to Hofmann's leucaniline, being $C_{21}H_{20}N_4$. The salts of the new base were exhibited and described, and the author stated that he had been unable to prepare a similar compound from Perkins' aniline-purple.

Dr. Frankland then offered some “Observations on the London Waters,” which consisted of a series of deductions from his own and Dr. Hofmann's analysis during the past year. The most important fact was the augmentation of total impurities, and especially of organic matter, during the winter months, and that the ordinary effect of rainfall upon the rivers was not to diminish, but to increase the amount of solid matters both in solution and suspension. The water supplies drawn from the Artesian wells of Kent and South Essex were much more constant, as regards their composition, throughout the year.

Further observations were offered by the President, Dr. Atfield, and Professor Way.

ZOOLOGICAL.—March 13.—Dr. J. E. Grey, F.R.S., V.P., in the chair.

Mr. St. George Mivart communicated some notes on the dentition and other points in the structure of the rare Lemurine animal *Microrhynchus laniger*, of Madagascar.

A paper was read by Mr. St. George Mivart and Dr. J. Murie on the anatomy of the Agouti (*Dasyprocta cristata*), principally relating to the myology of this animal.

Mr. A. Murray read a communication on the minor characters by which the species of mammals may be distinguished, and called particular attention to the structure of the hair as shown under the microscope, and the form of the dung, as likely to lead to results available in classification.

Mr. P. L. Selater read some additional notes on the ducks of the genera *Dendrocygna* and *Tadorna*.

A paper was read by Mr. H. Adams, containing descriptions of a new genus and a new species of Mollusks.

Dr. Gray stated that he had recently discovered the type-specimen of the little-known Chiropteran genus *Aello* of Leach, and was convinced of its identity with his own genus *Chilonycteris*, which must accordingly give way to the prior name.

Mr. Fraser communicated a second list of species of Mollusks collected by Mr. R. Swinhoe in Formosa, which had been drawn up for him by Mr. H. Adams.

Mr. H. B. Tristram, Corr. Memb., gave an account of the recent capture of the great Ribbon Fish (*Gymnistrus banksii*) off the coast of Durham.

ETHNOLOGICAL.—March 13.—Mr. J. Crawford, F.R.S., President, in the chair.

An elaborate paper was read and communicated by Sir John Lubbock, Bart., and Mr. Frederick Lubbock, “On the True Assignment of the Bronze Weapons, &c., of Central and Northern Europe,” being a reply to one recently read before the society by Mr. Thos. Wright, who assigns these weapons to the Roman era. Mr. Wright had brought forward one instance in

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Great Britain and two in France, and the authors argued that even in these cases it was by no means proved that the bronze swords and Roman remains were really found under conditions which proved their contemporaneity. Moreover, it was urged that, considering the abundance of bronze weapons on the one hand, and of Roman remains on the other, we must expect in some cases to find them together. In order to show, however, the character of the objects generally associated with bronze, a list was given of the contents of about a hundred tombs which contained bronze weapons, &c., being all those opened by Sir R. Colt Hoare and Mr. Bateman. Not one of these tombs contained a single object, not even a piece of pottery, which could be ascribed to the Roman period. As regards the evidence adduced by Mr. Wright, from the designs on Roman monuments and coins, the authors maintained that there was little similarity between them and the bronze weapons; and that it was impossible, from such evidence, to ascertain the material of which the weapons were made, but their form was unlike that prevalent in the bronze age, and the swords appear to have been used for cutting, and not for thrusting, as was the case with those of bronze. Having thus replied to the arguments brought forward by Mr. Wright, the authors gave numerous reasons which, in their opinion, proved that the weapons of bronze were not of Roman origin, but belonged to a period anterior to the conquest of Great Britain by the Romans.

Until the publication of Mr. Wright's memoir, cautious archaeologists may well have had their doubts as to the existence of a bronze age. A fortification cannot be regarded as safe until after it has undergone the test of an attack. Now, however, that they had heard what there is to be said against the Danish theory, the authors considered it might be assumed that the learned secretary of the Ethnological Society would have overlooked no weak point, no fatal fact, and the authors, therefore, confidently left the verdict in the hands of the society.

The paper was ably discussed by Mr. John Evans, Professor Busk, F.R.S., Mr. Luke Burke, Mr. Prideaux, Mr. Wright, Mr. R. S. Poole, and the President.

Mr. Wright combated the views of the authors of the paper, and said that more instances of the association of bronze swords, &c., with Roman remains could be brought forward, but that his time having been closely occupied with other matters, he had not been able to devote the necessary research which the subject required.

ANTIQUARIES.—March 15.—Mr. Ouvry, Treasurer, in the chair.

The Director exhibited an earthenware dish of neat pattern and of the material called Delf, bearing the initials "C.R.," and the date 1662.

The Rev. J. Simpson, of Westmoreland, exhibited some additional objects found at Brough. Among them were a bronze urn and dagger, and a curious mediæval ewer, of the fourteenth or fifteenth century.

Mr. J. Cove Jones exhibited a gold cinquecento ornament, and a small disc of gold, having in the centre the evil eye, and talismanic devices round it, both found at Rouen.

Mr. Campkin exhibited antiquities found in Sussex, and Mr. Thomas Honeywood, of Horsham, a medal representing the wife of Albert Durer, bearing his monogram and the date 1508.

Mr. F. M. Nichols exhibited an exquisitely engrossed Court Roll of the manors of Hollisley and Sutton, near Woodbridge, Suffolk, with a shield of the arms of Stanhope emblazoned at the top, identical with that on the portrait of Sir Michael Stanhope recently exhibited by the noble President. The date of the Roll is the second year of James I.

Mr. R. Ferguson, local secretary, exhibited a photograph of a cast iron tablet found at Carlisle, and Captain Tupper four daggers found in the neighbourhood of St. Thomas's Hospital.

Mr. Spencer Perceval communicated some remarks on several deeds exhibited by Mr. Philip Frere, of Dugate, and found in connexion with the Paston papers. One was executed between the Duke of York and Sir John Fastolf, and bears date 15 December, 36 Henry VI. Several have very elegant seals.

Among the papers was a letter in French from a John Paston, Bishop, dated 1440, of whom nothing further is known.

Mr. Perceval also read extracts from a Roll of the Deer in Framlingham Park, from 1517 to 1519.

Mr. Octavius Morgan read an account of the curious mosaic pavement recently found by him at the Roman station of Caerleon-on-Usk.

GEOLOGICAL.—March 7.—Mr. Warrington W. Smyth, President, in the chair.

Mr. Edward Filliter, Leeds; Mr. Myles Kennedy, Hill House, Ulverston; and Lieut. Chas. Warren, R.E., Gibraltar, were elected Fellows.

Dr. Joseph Leidy, of Philadelphia, was elected a foreign member.

Prof. J. P. Lesley, of Philadelphia, and Prof. Reuss, of Vienna, were elected foreign correspondents.

The following communications were read:—
1. "Documents Relating to the Formation of a New Island in the Neighbourhood of the Kameni Islands." By Messrs. St. Vincent Lloyd, H.M. Consul at Syra, A. Delenda, Consular Agent at Santorino, and M. Décigala. Communicated by the Secretary of State for Foreign Affairs. On or about February 1, the sea in the neighbourhood of the Kameni Islands, in the centre of the crater forming the harbour of Santorino, began to show signs of volcanic action, and the result has been the formation of a new island, which has since become nearly joined to the south of the island Nea Kameni. Details of the volcanic phenomena observed up to February 7 were given in the letters from Messrs. Lloyd and Delenda. M. Décigala gave an account of the further progress of the upheaval and increase of the new island, which he had named "George the First."

2. "On the Carboniferous Slate (Devonian Rocks) of North Devon and South Ireland." By Mr. J. Beete Jukes, F.R.S.

Mr. Jukes gave a sketch of the geological structure of the south-west of Ireland.

The following specimens were exhibited:—

Pterygotus, *Stylonurus*, *Eurypterus*, and *Cephalaspis*, from the Old Red Sandstone of Forfarshire; exhibited by Mr. James Powrie.

Encrinurus moniliformis, from the Muschelkalk, Saxony; exhibited by Mr. E. Charlesworth.

Mineral oils and rocks associated with them from Pisa; presented by Mr. St. John Fairman.

Specimens of "Woodwardite," a new mineral from Cornwall; exhibited by Mr. Bernard H. Woodward.

A miscellaneous collection of rocks; presented by Mr. W. T. Black.

ENGINEERS.—March 6.—Mr. John Fowler President, in the chair.

Twenty-five candidates were balloted for and declared to be duly elected, including four members—viz.: Mr. Hugh Carlile, Resident District Engineer on the Dunaburg-Vitepsk Railway; Mr. Edward Read Nelson Druce, Resident Engineer of the Harbour of Refuge Works, Dover; Mr. Richard Hassard, Westminster; and Mr. Robert Morgan, Local Government Act Office; and twenty-one associates—viz.: Mr. Henry Anderson, Messrs. Penn's factory, Greenwich; Mr. Charles Ormsby Burge, Westminster; Mr. Edward Charles Cracknell, Superintendent of Telegraphs in New South Wales; Mr. William Dempsey, Westminster; Mr. Hamilton Edward Harwood, Westminster; Mr. David Marr Henderson, Messrs. Chance's Lighthouse Department, Birmingham; Mr. Graham Hewett Hills, Marine Surveyor, Liverpool; Mr. George Knowles, Westminster; Mr. John Lean, Resident Engineer of the Vale of Neath Railway; Mr. James Campbell Ledger, Westminster; Mr. George Leeman, M.P., Deputy-Chairman of the North-Eastern Railway Company; Mr. Samuel Henry Louttit, Secretary of Hamilton's Windsor Ironworks Company; Mr. Emile Martin, Adelphi; Mr. Edward Adolphus Fenwick Mayer, late Engineer and Secretary to the Municipal Commissioners of Darjeeling; Mr. Henry Oakley, Secretary to the Great Northern Railway Company; Mr. John Robinson, Bombay; Mr. Thomas Harrison Seacome, Kensington; Mr. George Thornton, Acting Provincial Engineer and Inspector of Roads for the Province of Canterbury, N. Z.; Mr. George Careless Trewby, Superintendent of the Westminster Station of the Chartered Gas Company; Mr. William Vawdrey, Resident Engineer of the South Staffordshire Waterworks; and Mr. Henry William Wickes, Bromley.

ROYAL INSTITUTION.—General Monthly Meeting, March 5.—Sir Henry Holland, Bart., F.R.S., President, in the chair.

Mr. Charles Joseph Hyde Allen, Mr. George Acland Ames, Mr. John Boyle Barry, M.R.C.S., Mr. Edward Ladd Betts, Mr. John Conolly, M.D., D.C.L., Mrs. Katherine Sophia Elizabeth Foote, Mr. James Park Harrison, M.A., Mrs. Elizabeth Mary Hoppood, Mr. John Mortimer Hunt, Sir James Lacaita, Sir Charles Nicholson, Bart., Mr. Brinsley de Courcy Nixon, Mr. J. Bertrand Payne, F.R.G.S., Mr. Joseph Payne,

Sir Samuel Morton Peto, Bart., Mr. David Trail Robertson, Mr. Pandeli Ralli, Mr. James Graham Stewart, Mr. Daniel Charles Stiebel, Mr. William Castle Smith, were elected members of the Royal Institution.

The special thanks of the members were returned to the donors of the following additions to "The Donation Fund for the Promotion of Experimental Researches:" Captain Douglas Galton, C.B., 10*l.*; Mr. Harry Mackenzie (third donation), 10*l.* 10*s.*; Samuel Reynolds Solly, F.R.S. (fourth annual donation), 20*l.*; Mr. Adam Murray (second donation), 5*l.* 5*s.*

The decease of Mr. William Thomas Brande, D.C.L., F.R.S., Honorary Professor of Chemistry in the Royal Institution, was announced.

LITERARY AND PHILOSOPHICAL, MANCHESTER.—March 6.—R. Angus Smith, F.R.S., President, in the chair.

Mr. E. Sonstadt communicated a "Note on the Purification of Platinum."

A conversation took place on the cattle plague, in the course of which the President and Mr. Spence stated that the use of carbolic acid as a disinfectant had been successful as a preventive in a small number of cases tried. An opinion was expressed by some members that the means which had been adopted to arrest the progress of the disease had, in fact, served to propagate it and extend its ravages, and that official interference had virtually taken the management of the cattle plague out of the hands of those who, from practical experience and personal interest, were best qualified to deal with it, and that if the farmers had been left to act for themselves, without official interference, the rinderpest might never have assumed its present formidable aspect.

A paper was read "On the Liassic and Oolitic Iron Ores of Yorkshire and the East Midland Counties," by Messrs. Edward Hull and William Brockbank.

Microscopical and Natural History Sections.—Feb. 26.—Mr. A. Brothers in the chair.

The following objects were exhibited:—

Mounted specimens of twenty-four species of Ostracoda, from Dog's Bay shore-sand, collected by Dr. Alcock, and named by Dr. G. S. Brady.

Mounted specimens of many forms of Foraminifera, from a deposit discovered while sinking a well at Boston, Lincolnshire.—Mr. Sidebotham.

The skull and skin of a male Otter, shot in Rostherne Mere, Feb. 16.—Mr. Harrison.

Dr. Alcock read a paper on Foraminifera from mud washed out from a shell of *Halia Priamus* in Mr. Darbishire's collection.

Physical and Mathematical Section.—Annual Meeting.—March 1.—Mr. E. W. Binney, F.R.S., President of the Section, in the chair.

The following gentlemen were elected officers of the Section for the ensuing year: President, Mr. E. W. Binney, F.R.S., F.G.S.; Vice-Presidents, Messrs. Robert Worthington, F.R.A.S., and Joseph Baxendell, F.R.A.S.; Treasurer, Mr. Thomas Carrick; Secretary, Mr. G. V. Vernon, F.R.A.S., M.B.M.S.

A paper was read "On the Variable Star R. Vulpeculæ. $\alpha = 20^h 58^m 22.9^s$. $\delta = +23^\circ 17' 2''$. Ep. 1865.0." By George Knott; communicated by Joseph Baxendell.

A paper was also read "On the Fall of Rain during the Different Hours of the Day, as deduced from a Series of Observations made by the Rev. J. C. Bates, at St. Martin's Parsonage, Castleton Moor," by Joseph Baxendell.

Photographical Section.—Feb. 8.—Dr. J. P. Joule, F.R.S., Vice-President of the Section, in the chair.

Mr. Sidebotham brought before the section a number of pictures, by Boulton and Watt, which had been supposed to be photographs. The examination he had made of them convinced him that they had been produced by a different process.

Mr. Dancer coincided in this opinion. He thought that the camera had been employed, but solely for the purpose of enabling the artist to trace the outline, and to enlarge or reduce the image to any required scale.

March 8.—Dr. J. P. Joule, F.R.S., Vice-President of the Section, in the chair.

Mr. Brothers, stated that since the last meeting he had tried the use of wax dissolved in ether, as recommended by Mr. Rogerson, for the purpose of cleaning glass plates, and was quite satisfied it was an excellent method of cleaning glass.

A paper was read "On the Pantoscopic Camera," by Mr. J. R. Johnson, communicated by Mr. E. C. Buxton.

CAMBRIDGE PHILOSOPHICAL.—March 12.—The following communications were made to the society:—

By Mr. Paley, "On the Homeric Tumuli." The author gave an account of the funeral obsequies of the Greeks and Trojans, as they are described in the writings of Homer; and explained the manner in which the remains of the dead were covered by a tumulus; pointing out the correspondences between these descriptions and the facts which have been observed in other tumuli in different parts of the world.

By Mr. Todhunter, "On the Method of Demonstrating some Propositions in Dynamics." This was a simpler method of proving the propositions relating to the motion of a body in an orbit around a centre of force, which are given by Newton in the second and third sections of the Principia.

MEETINGS FOR NEXT WEEK.

MONDAY.

ACTUARIES, 7.—"On the Construction of Tables by the Method of Differences," Mr. Peter Gray.

BRITISH ARCHITECTS, 8.

GEOGRAPHICAL, 8.30.—"Observations on Some Recent Travels in the Countries between Kashmir and the Russian Frontier," Sir H. C. Rawlinson.

TUESDAY.

ENGINEERS, 8.—Discussion upon Mr. Williams's paper "On the Maintenance and Renewal of Permanent Way."

ETHNOLOGICAL, 8.—"On the Invention and Use of Writing Materials," Mr. John Crawford; "Notes on Mr. Crawford's Paper on the European and Asiatic Races," Professor Dadabhai Naorji.

MEDICAL AND CHIRURGICAL, 8.30.

ZOOLOGICAL, 8.30.—"On the Anatomy of the Lemnoides," Dr. J. Murie and Mr. St. George Mivart; "On the Birds Collected by Mr. E. Bartlett on the Ucayali," Mr. P. L. Slater and Mr. O. Salvin; with other papers.

THURSDAY.

CHEMICAL, 8.—Anniversary.

ART NOTES.

WE congratulate the Architectural Society on the way in which the prizes have been awarded to the art-workmen, particularly in the case of the bas-relief copies of Flaxman's Ascension. The two first prize works show true devotional feeling, and that childlike simplicity of execution which is so thoroughly in harmony with our Christian faith. In the most admirable of the two, to which very properly the first prize has been awarded, the subject is faintly lined on the marble, and where any slight relief was felt to be admissible, it was obtained by simply scraping away a little of the background behind. At a distance of ten feet, and in an even light the work is altogether invisible, and on this ground it has been urged by some that such faint and timid scratching is inappropriate in architectural sculpture; but we would remind those Pagan objectors, that humility is better than a coarse obtrusiveness, and that the pensive and retiring snowdrop is more beautiful than the vulgar sunflower, though that may be seen twenty times as far. It is well that our art-workmen should be taught that the battle is not to the strong, or the race to the swift, and a rigid adherence to true principles in awarding the prizes will, we trust, before long, develop a school of art which shall adequately represent the saintly devotion and childlike faith of the nineteenth century. In the work of "Perseverance" we see quite a different treatment: the artist puffed up with intellectual conceit, and misled by Pagan examples, has attempted to give variety of relief, some parts actually standing out forcibly, others in a sensual manner melting into the background. The flesh is round, and has that appearance of softness which is proper only in profane works of the most degraded class. We presume that in giving a third prize to "Perseverance" the judges took into consideration the patient, though misguided, labour which must have been expended on the work; but we confess we are somewhat at a loss to conceive how they could have overlooked the extraordinary merit of the work which hangs immediately beneath it: the distorted limbs, the ugly and saintlike faces, the general air of mediæval imbecility, ought, we think, to have received some recognition. In the *repoussé* work the head to the left of that which has obtained the prize seems to us to have much of the character of the archaic figures which adorn the priceless shrines that have descended to us from the ages of faith. We may, perhaps, be permitted to suggest that the objects to be copied should in future be selected from that period of art, rather than from classical examples; the head of the Germanicus has, it is true, something of the austere and ascetic expression of less barbarous times, but the disgusting nudity of the figure makes us, we con-

fess, regard everything connected with it with some suspicion. The enamels are very creditable, and we are glad to see that the artists have very properly omitted the affected sway of the original: it is well known that the works of Pisano were too often tainted with Paganism. With regard to the ornamental carving in stone and wood, the judges seem to us to have sadly deviated from the principles which so successfully guided them in awarding the prizes to the bas-reliefs. The poppy-head is by far the most beautiful thing exhibited, and by what canons of taste they could be justified in giving it a prize, we are at a loss to conceive, and it is, we fear, not unlikely that the art-workmen may be bewildered by this want of consistency on the part of their learned and accomplished patrons.

WE would remind our readers that the "Working Men's Exhibition" in Guildhall will only be open another fortnight. Although the bulk of the things exhibited belong to manufacturers and great shop-keepers, rendering, as is usual in such cases, the title of "Working Men's Exhibition" a misnomer and a farce, there are, nevertheless, many ingenious examples of *bond fide* work from the hands of veritable artizans, which visitors will be delighted to examine and to admire. To be worthy of the name assumed, such exhibitions must be entirely remodelled.

THERE are now on view at the Gallery of the Messrs. M'Lean several works of art in which the public have a peculiar interest. Foremost among these is the large picture of the House of Commons, painted by John Phillips, R.A., for the Right Hon. the Speaker; and all those wishing to refresh their memories with a sight of that masterly work before it is finally hung in the private gallery of its owner, have now an opportunity of doing so. Such a work requires neither criticism nor commendation at our hands; it has taken its place, and, among works of its class, that place is the highest. We would rather turn to the engraving, which is just completed, and which is to make the world familiar with the face and form, the individual attitude and character, of the famous men on either side of the House, from Gladstone to Disraeli, from John Bright to Sir Edward Bulwer Lytton. To Mr. Thomas D. Barlow this difficult task has been confided, and all who have examined either the etching or the finished plate are unanimous in their opinion as to its high merits. With so many heads, thirty-three in all, there were grave obstacles to be overcome in the massing of light and shade, and in giving harmonious tone to the plate generally; but with his usual felicity Mr. Barlow has triumphed over every difficulty. To call on the engraver, and speak his warm approval of Mr. Barlow's work, was one of the last duties the great painter performed before his departure for the Eternal City. There is not a single figure which any one at all familiar with the men could not point out in a moment; and with Lord Palmerston, the central one of all, who is in the act of addressing the House—and which Lady Palmerston described as the only real portrait which had ever been taken of the Premier—Mr. Barlow has been wonderfully successful. The plate, moreover, is so full of what engravers call colour, that the very tone and complexion of every face in it is palpably indicated. We congratulate Mr. Barlow on the completion of his great task, and have little doubt but that the plate will become, as it unquestionably deserves to be, one of the most popular he ever engraved. In the same gallery will be found another engraving worthy of notice, also after a picture belonging to the Speaker. In this instance, it is the outside of Parliament which is represented; and we are bound to confess that the Palace of St. Stephen's was never before rendered so correctly, and at the same time so pictorially. The view is taken from the right bank of the river, a little below Westminster Bridge, and the artist is Mr. H. Dawson. The picture was exhibited a few seasons back in the Gallery of the British Institution, and was one of the most ambitious, and, on the whole, happy pictures the artist ever painted. The only exception we took to it, in noticing it at the time, lay in certain crudenesses of colour which we thought manifested themselves in the immediate foreground and in the lower strata of the distant sky; but in the admirable line engraving which Mr. William Chapman has produced all these disappear. We thought Mr. Doo's "Raising of Lazarus" was to be the last great work in line which the English school was to produce; but Mr. Chapman now divides the laurels with him. It is sad to think with two such line engravings before us, Mr. Doo in figures and Mr.

Chapman in landscapes, that there will be none to succeed them, and that the noble art must inevitably die out in England. Mr. Chapman is particularly bold, and at the same time refined, in the management of his line; and, from the fact that only one hundred impressions will be taken from this noble plate, subscribers will perceive that "The Houses of Parliament," as engraved by Chapman, will become an art-possession whose value every succeeding year will enhance.

THE Universities Union Club, for which there was so much need, is now fairly organized; and very commodious premises, commanding on the one hand a view of Pall Mall, and on the other of Trafalgar Square and Charing Cross, have been taken in Cockspur Street. Men who are or have been members of any of our Universities are eligible for election; and we understand from Mr. Kingstou Innes, the able secretary and founder of the club, that numerous applications for admission are being made to him daily.

MR. THOMAS PURNELL, Assistant Secretary of the Archaeological Institute of Great Britain and Ireland, has forwarded to us a prospectus of the annual meeting, 1866, which is to be held in London, commencing on Tuesday, July 17, and closing on Wednesday, July 25. The Council announce that the proposal of a London meeting, including a visit to Windsor, the favourite residence of so many of our Sovereigns, and a grand example of a fortified palace, was at once cordially approved by Her Majesty, and her permission to visit the castle with its rich treasures of art and historical associations, was most graciously conceded. In the City of London the Lord Mayor and the Court of Common Council have liberally conceded the use of the Guildhall for the opening meeting, and of other accommodation for business purposes. The Archbishop of Canterbury, and other chief dignitaries of the Church, together with various learned bodies in the Metropolis, have also given promises of kind encouragement and support. Westminster Abbey will be the subject appropriated to the Dean of Westminster, who will treat of the historical incidents connected with it, the coronations, ceremonials, and the royal obsequies of which it has been the scene. Professor Willis will, together with Mr. G. G. Scott, treat of the architecture of the Abbey; and Professor Westmacott will undertake the royal monuments and sculpture it contains. Other fine ecclesiastical buildings in and near London, especially those City churches which escaped the great fire, will be subjects of investigation. Waltham Abbey will be visited, and has been taken as a theme by Mr. E. A. Freeman. London itself, in its early life as a Roman city, and in the varied and numerous stages of its growth during mediæval times; in the development of its commercial greatness, its customs, and its municipal institutions; the consideration of the worthies it has produced; its Episcopal see and old St. Paul's; the royal palaces and the primatial palace of Lambeth in its vicinity, will furnish many subjects of absorbing interest and of agreeable discussion. The consideration of the origin and bearing of antiquarian institutions and museums in the metropolis will probably be the subject of the introductory discourse to be delivered by one of the presidents of the sections. The Roman Conquest, and occupation of the neighbourhood of London by Aulus Plautius, will be brought before the meeting by Dr. Guest, Master of Gonville and Caius College, Cambridge. Professor Worsaae, of Copenhagen, will, it is hoped, give a discourse upon the Danes on the Thames, of whose inroads so remarkable a vestige is to be found in their defensive work, the moat at Fulham Palace. The architectural features of that fine example of military architecture, the Tower of London, and its documentary history, will be elucidated by the pen of Mr. G. T. Clark. The historical events connected with it will form the subject of a paper to be read by Mr. W. Hepworth Dixon. Eton College and its chapel will form the subject of Professor Willis's discourse; and the Provost has promised cordially to welcome the Institute on the occasion of their visit, and to afford the fullest facilities for the examination of the buildings. Mr. George Scharf will lecture on the collection of paintings at Hampton Court. The occasion of the London meeting seemed to afford the Council an excellent opportunity for the inauguration of a new section—that of Primæval Antiquities. The introductory address will be delivered by the President of this section. The Council will thankfully receive suggestions as to memoirs upon subjects calculated to be of interest to the meeting, and desire that speedy information upon any intended communication be made to Mr. Thomas Purnell, the Assistant

Secretary of the Institute. Admission to the meeting will be, as at the annual meetings of the British Association, by tickets. Price, for gentlemen, members, and visitors (not transferable), one guinea; for ladies (transferable), half-a-guinea.

At the recently concluded sale of the Choiseul Gallery, the famous "Head of a Youth," by Greuze, which it was believed would be the subject of warm competition, was knocked down at 2,500*l.*, and it was with difficulty that the auctioneer obtained even that comparatively small sum. This was explained by the fact that the Greuze, which fetched 4,000*l.* at the Pourtales sale, has been since declared doubtful, and amateurs have consequently become very mistrustful.

MUSICAL NOTES.

The Civil Service Musical Society made its first appearance in public on Wednesday evening last. The concert, given on this occasion at the Hanover Square Rooms, was eminently successful, and attracted a most brilliant audience. The programme comprised Gounod's mass, several part-songs and glees, and well-selected overtures and instrumental pieces. The solos were allotted to Mr. Slater and Mr. Bentham. The latter gentleman, whose name is well known in private musical circles, chose Donizetti's "Il Pescatore" and Mr. Fred Clay's ballad, "The Shades of Evening," in both of which songs he thoroughly charmed his audience. A concert which only affects to be a private "soirée musicale" on a large scale, must not be criticised; but it is pleasant to be able to report that both the orchestral and choral departments of the association, the latter especially, succeeded in making capital music. In the present scarcity of tenors, one of the gentlemen who sang on Wednesday, if he has not (as M. Garcia told the Count de Candia) a hundred thousand pounds a-year in his throat, would be at least secure of a high position in the professional ranks, if he chose to make music his *métier*. Mr. Bentham has a magnificent voice, and his style is artistic and highly finished. Mr. Sullivan conducted the society's band; Mr. Foster being the chorus master.

On Monday evening next (Passion week), at the Monday Popular Concerts at St. James's Hall, Herr Joachim will make his last appearance for the season. Signor Piatti will also appear and perform on the violoncello, and Mr. Santley will sing, "Sleep, heart of mine," and "O lieti di."—At Exeter Hall the National Choral Society will give three oratorios in Passion Week—on Monday the "Messiah," in which Miss Louisa Pyne, Miss Lucy Franklein, and Messrs. Cooper and Thomas will sing; on Thursday, "Elijah," the principal parts by Madame Rudersdorff, Miss Lucy Franklein, and Mr. Santley; and on Thursday, the "Creation," with Madame Sherrington, Mr. Santley, and Mr. Leigh Wilson. The Sacred Harmonic Society will give, as the Passion Week subscription performance, the "Messiah," at Exeter Hall on Wednesday, the principal parts by Mesdame Parepa and Sainton-Dolby, and Messrs. Sims Reeves, Patey, and Santley.

On Thursday there will be a grand morning concert at St. James's Hall, for the benefit of two distressed Italian families.

The Royal Society of Musicians of Great Britain will hold their annual festival at the Freemasons' Tavern, on the 18th of April, J. D. Coleridge, Esq., M.P., in the chair.

The great Sacred Concert provided for Good Friday afternoon at the Crystal Palace includes *artistes* of the highest order. Mr. Sims Reeves heads the list; in addition to him, Mr. Santley (whose sudden return from Milan allows of his appearing), Madame Rudersdorff, and Mr. Weiss, with Mr. Harper as trumpet solo, the full Band of the Crystal Palace Company, the Band of the Coldstream Guards, and a chorus, make up an attractive list of names. There will also be a great Show of Spring Flowers by Messrs. Cutbush, on a stage 300 feet long. For Easter great preparations are making. Ethardo, who has been fulfilling with great success a few of the country engagements pressed upon him during his absence from the Palace, resumes his engagement. Wombwell's great menagerie also attaches itself to the Palace, and thus the Palace maintains its character as the "resort for all." The attendance at the Palace during the past few months has been considerably in excess of any former year, a result attributable in a great degree to the convenience afforded by the new High-Level Railway, as well as the

general adoption of the Uniform Guinea Season Ticket.

If there is not an abundance of good music to be heard in London this season, it will not be the fault of our two opera-managers. Mr. Gye's programme of the Covent Garden campaign is, in most respects, a brilliant one. It contains, it is true, nothing to show that the long-felt want of first-force tenors is to be satisfied; but Signor Mario remains "faithful for ever" to the enterprise of which he has been the mainstay nineteen years, and the names of Signori Naudin, Neri-Baraldi, and Brignoli, make up for all ordinary purposes a good working corps in this department. But the soprani of Mr. Gye's troupe muster in great force. Some are new comers (one of whom, Madame Vilda, ought to be good, as she is set down for *Norma* and *Donna Anna*); but the question as to how they will succeed need not be a very anxious one, when the general list contains the names of Patti, (both the sisters), Lucca, Sherrington, Tricci, and Artôt. With the help of three of these ladies we are to have a cast of "Figaro" which ought to make that most enchanting opera one of the features of the season. Mdle. A. Patti is to play the waiting maid, Mdle. Lucca the Countess, and Mdle. Artôt the page, with MM. Graziani, Ronconi, and Faure, in the other characters. Other interesting *reprises* will be those of "Dinorah," with Mdle. Patti in the leading character; "Fra Diavolo," with Mdle. Lucca as *Zerlina*; and "L'Etoile du Nord" strengthened by the *Catharine* of Mdle. Patti. A new *Fides* comes in the person of a Mdle. Deconei, Signor Mario still undauntedly retaining his old part of the *Prophet*. For the re-appearance of the "Traviata" an apology must apparently be sought in the allotment of the character to Mdle. Orgeni, whom we may suppose to be the young English lady who, under nearly the same name, has been making a *furor* in some Italian opera-houses, though she is here announced as from Berlin. An opera, which will be sure to attract attention, is the "Crispino" of the Brothers Ricci (so much talked of in Paris), in which Signor Ronconi will find a comic character to give full scope to his laughter-moving powers. Another piece, which will be looked for with interest, is the "Don Sebastiano" of Donizetti, which so many declare to be the composer's best opera-seria. "L'Africaine" of course will be produced, with the repetition of all the splendours of last season. It is in this piece, we presume (and we hope in some others), that Madame Sherrington will be heard. It is strange that this admirable singer should not have appeared before on the Italian stage.

The Saturday Popular Concerts have been attracting immense crowded audiences this season. It is no wonder that the hall should be crammed to hear a couple of hours' music such as that given last Saturday—a concert beginning with Beethoven's Quintet in C (the one so memorable for its wonderful finale) and ending with the greatest of the pianoforte trios (in B flat, Op. 97). Mr. Henry Blagrove was the first tenor on this occasion. Herr Joachim's playing of Sonata or *quasi-Sonata* for violin solo, by Bach, was received with the usual enthusiasm.

We are glad to see that Messrs. Novello have published two serviceable, cheap, well-arranged editions of M. Gounod's "Solemn Mass," one with Latin words and another adapted to the English ritual. Mr. J. Barnby is the arranger of the accompaniment, and has made it as effective as a pianoforte version of such many-coloured music can well be. We happen to know that more than one leading choral society has been deterred from taking up this splendid work by the difficulty of getting decent copies of the music, the Parisian "short score" being a miserable production, and the organ arrangement still worse. Messrs. Novello's reprints will give the work the currency it would have had long since but for the drawback.

Our present musical season will not, to all appearance, be quite so interesting, on its "classical" side, as that of last year. Madame Schumann has been expected, but will not, it is said, be able to come. A not unnatural dread of the fatigues of a London season has something to do, we understand, with her absence.

Herr Joachim's solo at the Philharmonic, on Monday evening, was a Concerto of Viotti. The great violinist proved himself to be as much at home in the quaint and discursive but tuneful music of the old Italian as he is in that of other schools. His cadenzas were wonderful. In the

absence of Madame Schumann, the piano part in Beethoven's great E flat concerto was given to one of our best English players—Mr. Cusins. Of his playing we will only say that it is a clear, spirited, and manly performance; for, to say the truth, it is almost impossible to fix the attention on the details of execution in listening to such music as this—music which is so wholly overpowering by its majesty and loveliness.

It would be difficult to match the cool impudence of the following advertisement, cut from the *City Press* of Saturday last. "An organist is required for the Sunday Morning Early Lecture at St. Swithin's Church, Cannon-street, City. Duties from April to September. Remuneration, two guineas. The service commences at 6.30 A.M. Address, &c." Six months' attendance for the magnificent "remuneration" of forty-two shillings! The service being at half-past six in the morning, none but "early" Christians need apply. We should be glad to know how much that humble but highly necessary functionary the blower is to receive for his services.

DRAMATIC NOTES.

The revival of "The Streets of London" at the Princess's Theatre, with its gorgeous scenes of Charing Cross in a Snowstorm and the House on Fire, has been the only notable theatrical event this week. Mr. Boucicault's drama is expected to run on until early in May, when Mr. and Mrs. Charles Kean return, and give a series of farewell performances.

THEATRICAL folks are now beginning to discuss the Easter novelties. Most of the theatres will have occasion to change their well-worn programmes. The doors of Old Drury will be closed. Mr. Sothorn comes back to the Haymarket, with Dr. Westland Marston's new comedy of "The Favourite of Fortune," which will have been well rehearsed at Glasgow and Liverpool by Easter time. The cast at the Haymarket will comprise Messrs. Sothorn, Buckstone—who plays a young man—Chippendale, and Rogers; and Madames Kate Saville, Nelly Moore, Snowden, Fitzwilliam, Caroline Hill, Lindley, and Loseli. At the Adelphi we are to have the time-honoured "Dead Heart," with new scenery. Mr. Webster returns, and Mr. Jefferson goes into the provinces with "Rip Van Winkle." There are no signs as yet of "La Belle Helene." There is always a dark mystery veiling all the proceedings at the Lyceum, and until the very last moment it is not easy to say what treat is in store for us. Some say there will be no change at all; others, which is the more probable version, that Mr. Henry Leslie, of "Orange Girl" renown, has written a new melodrama; and others again, that we are to have the Lady of Lyons, with a grand scene of the Battle of Lodi, specially introduced by Sir E. Bulwer Lytton. Henry Dunbar retires into obscurity, and makes way for Mr. Leicester Buckingham's new comedy at the Olympic. Among other novelties looming in the future at this theatre we hear of an original farce by Mr. Walter Gordon. "Society" is so eminently successful at the Prince of Wales's that there will be no occasion to provide a new comedy just yet. Sheridan Knowles's posthumous drama will be brought out at the Strand, together with a new burlesque by Mr. F. C. Burnand, called "Paris." A new drama by Mr. Watts-Phillip, called "Theodore," will be produced at the Surrey, in which Miss Avonia Jones will play the principal character. The subject is, we believe, classical. Mr. E. T. Smith at Astley's promises us "Der Freyschutz," with the "highest operatic, dramatic, scenic, and sensational effects ever presented to the public on any single evening." To this will be added an extravaganza by Mr. F. C. Burnand, called "Boabdil el Chico; or, the More the Merrier." Easter will introduce a new and very charming manageress to the Royalty. Miss M., or rather Miss Patty, Oliver is to take this little theatre in hand, and we hear rumours of the likelihood of her trying bright, sparkling *Vaudevilles*. This will be a novelty, but a most acceptable one. Offenbach is getting known at last, and surely the time has come for us to have a theatre entirely devoted to the entertainment we get at the *Variétés* or *Bouffes Parisiennes*.

Two theatres have been burnt to the ground during the past week—that of Brest, and the large wooden structure in the Place de St. Sylvestre at Rome.

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